BUSINESS WEEK

Go-Between: Anthony Eden handles diplomatic preliminaries in smoothing relations with the Soviet Union.

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Table Manners

THAT ARE VITAL TO WAR PRODUCTION

Lubricating oil and oil film are shown in red in the picture

TO HELP MAINTAIN
CAPACITY PRODUCTION
CALL IN

SOCONY-VACUUM

GARGOYLE Lubricants *for Correct Lubrication*

SEE THAT FLAT SURFACE 'way up in the right-hand corner of the picture? That's the table of a planing machine.

When the big, oil-covered gear below it turns, the table moves and carries intricate parts for guns or, maybe, engine frames across the planing tool.

Hour after hour the table swings back and forth—*and if that gear wears vital war production suffers!*

A protecting film of oil must stay on the face of the gear to resist wear. The film must not be "wiped" off!

War plant after war plant—nearly 75% of the airplane industry for example—entrust their production machines to Socony-Vacuum's Lubricants.

Back of the makers of Gargoyle Oils and Greases are 77 years' experience. This is unequaled—and invaluable to plant men who *must* have uninterrupted production.

SOCONY-VACUUM OIL COMPANY, INC.
Standard Oil of New York Div. • White Star Div.
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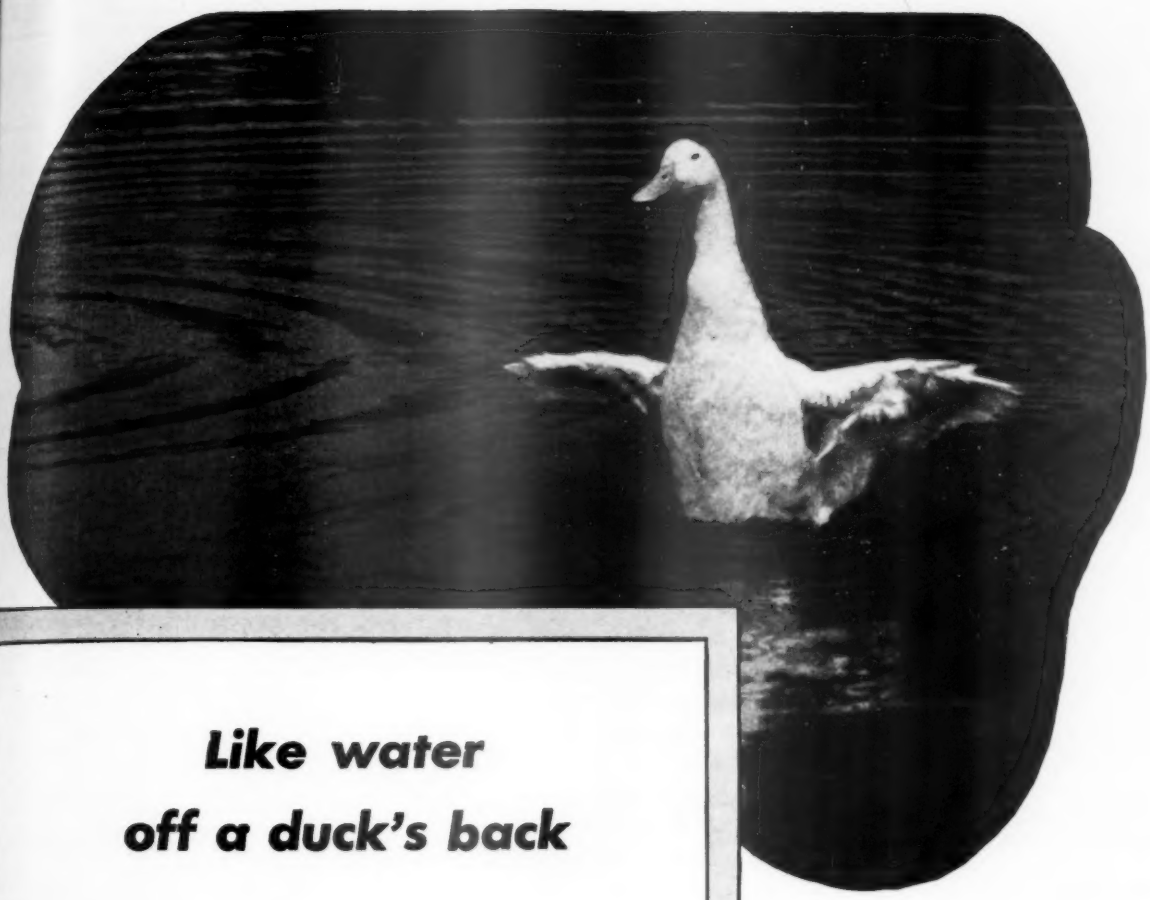

Like water off a duck's back

A DUCK is just naturally waterproof. He's built that way. Being waterproof is his specialty. It enables him to do a lot of things that a chicken, for example, can't do.

Just as a duck sheds water, Hycar synthetic rubber sheds oil. For Hycar's specialty is oil-resistance. Particularly oil-resistance in the presence of heat, abrasion, pressure, or aromatic hydrocarbons. The oil-resistant types of Hycar are built that way. But the *degree* of oil-resistance is closely controlled, tailored to the job. Oil-swell can be held to ±1%, or even to zero. In addition, Hycar can withstand temperatures of 250°, abrasion resistance is 50% in excess of natural rubber, and compression-set characteristics are excellent.

Aren't these the qualities you have wanted in oil, fuel and coolant hose, resilient mountings, vibration dampeners, gaskets, packing, seals and other resilient products you use? *Hycar Chemical Co., Akron, O.*

Hycar is supplied in crude form to rubber fabricators. Because of its outstanding performance in war uses the demand far exceeds the supply. But now is the time to work out with your supplier of rubber products ways of obtaining Hycar for actual test in your own applications, both present and future. It's to your advantage to gain experience now against the day you will need new and even better rubber products. Our technical staff and laboratory are ready to help.

Hycar

LARGEST INDEPENDENT PRODUCER OF BUTADIENE *Synthetic Rubber* IN AMERICA

BUSINESS WEEK

WHERE TO FIND IT

THE PICTURES

Cover—Acme; 16—Int. News; 17—Wide World; 19—Dwight Boyer; 22—Wide World; 34—Sovfoto; 48—Wide World; 50—Brown Combine; 66—Int. News; 68—Wide World; 75—Acme.

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WASHINGTON BULLETIN

WHAT THE WASHINGTON NEWS MEANS TO MANAGEMENT

Fighting Overconfidence

Washington is desperately anxious for the country—business men, labor, the general public—to keep the collapse of Italy in perspective. There's no doubt about its importance (page 15). It means the end of the original Axis, a well-established base on the continent, a big saving in men and munitions.

It may very well mean a shorter war, and a cheaper one.

But it does not necessarily mean that Germany cannot last the winter, as one congressman exuberantly predicted. Nor does it mean any immediate change in the problems of production, manpower, or civilian supply, with which the United States is wrestling.

The Administration's big job now is to make the nation realize that. To avoid any possible letdown in war production, to keep the big bond drive, launched this week, from being undermined by a false optimism, the Administration will intensify its campaign against complacency.

No Change in Schedule

Washington—and London—had pretty well discounted Italy's surrender in advance. Military plans didn't take it for granted, but they figured it in as a probability. Hence, the manpower and materials freed by the sudden success of the Italian operation are not a pure windfall. In an accounting sense, they are resources that the Allies could have reasonably expected to have and to use.

For this reason, Italy's collapse will precipitate no drastic shakeup in military plans or in war production. Manufacturers working on war orders probably will notice no effects at all. For the time being, the production timetable and the outlook for reconversion remain unchanged.

More for the Pacific

But Italy's surrender does open new opportunities to the Allies. One consequence may be earlier action in the Pacific. For some time, Allied strategists have figured that the United Nations have sufficient resources to strike hard in two places. This latest addition to their resources gives them a free hand in Europe and in the Pacific.

Accord with Russia Nearer

Political aspects of the Italian armistice hint at a new phase in relations between England and the United States on one hand and Russia on the other. Russia was consulted about terms of the armistice and gave its approval. This is the first instance since the war began where the three powers acted in concert. Diplomats striving for a joint meeting of Churchill, Roosevelt, and Stalin take it as a hopeful sign. In any case, the initiative in Europe clearly has passed from the now broken Axis to the new Anglo-American-Russian triangle.

▼

No Big Fight Coming

There are issues aplenty to set the returning Congress and the White House at odds but none that will long survive President Roosevelt's deft conciliatory policy. The President and his aides—now largely right wing politicians—have gone a long way this summer toward reselling the country on the Administration. New Dealism—both policy and personnel—has, in the main, been consigned to the doghouse. The cost of living has been anchored, at least temporarily. There's been enough talk of new ice boxes and such to pep up consumers' spirits to some extent. And, above all, there is the military success in Africa and Sicily with the resultant capitulation of Italy to ease the political tension.

What's Ahead for Congress

Immediate homefront issue confronting Congress is the fathers' draft. The legislators will throw this right into Roosevelt's lap, and you can count on it that he will compromise it somehow.

A labor draft law isn't in the cards. Both Roosevelt and Congress have stalled so long that little can be gained by such a program.

Food Administrator Marvin Jones has moved ahead steadily in his program to quiet the rebellion on the food front. His elimination of controls over farmers and his promise to make only minimum use of subsidies have taken the heat out of the fight between the Administration and the congressional farm bloc.

OPA General Manager Chester Bowles is rushing reorganization of the price rationing organization on a decentralized basis in the hope that it will forestall another congressional attack. Rep. Howard Smith of Virginia, however, will put OPA on the pan.

Work on the new tax bill (page 18) is likely to bring some sharp exchanges between Congress and the Treasury. Nobody really expects a bill that would raise the $12,000,000,000 in extra revenue asked by the President.

The expanded social security program won't come up for debate until well into the winter. Final action is very likely to hold over until after the 1944 elections.

Real agitation for amending the Connally-Smith Act is apt to be provided by employer groups. The unions, although they can't publicly announce that they like the law, are having a field day with its strike vote provision (page 108).

One Bone of Contention

Old line Democrats have been soothed by the President's stand for Secretary Cordell Hull and the concentration of all foreign economic activities—economic warfare, lend-lease, and foreign relief and rehabilitation—in his hands. But hard to reconcile with this conciliatory move, and almost certain to raise a row, is the President's appointment of Calvin B. Baldwin, former administrator of the Farm Security Administration who has often been accused in Congress of left wing leanings, to head economic rehabilitation in Italy.

Italy's surrender, on the eve of Congress' return, will give anti-New Dealers a wide opening to probe the President's policies with reference to administration of occupied territory.

▼

Renegotiation Outlook

Bucked up by the idea that they have the price adjustment boards on the run, manufacturers are prepared to make the most of the Ways & Means Committee hearings on renegotiation which got under way this week. Companies heading the attack are not the old peacetime giants, but small and medium sized outfits that have hit the big money and want to stay there.

Grand strategy of the manufacturers is to put renegotiation on an "after taxes" basis instead of having it recapture excessive profits before taxes. Old line companies, with comfortable ex-

Other Washington reports in this issue include: **Tax Bill Snagged,** *page 18;* **Eat Your Prunes!,** *22;* **Space Is Scarce,** *29;* **Egg Profit Widens,** *34;* **A Little Liquor,** *80;* **Statistical Vision,** *98;* **Postwar Cushion,** *103. Washington trends of importance to management are also discussed weekly in* **The Outlook** *and other regular departments of* **Business Week.**

A war can last *one minute too long...*

A man can get killed just as dead on the last day, the last hour, the last minute of the war as he can at any other time.

If American troops are delayed in their advance because we at home fail to produce the supplies they need on time, then we are guilty of prolonging the war, lengthening the casualty lists.

The great majority of American industrial workers, owners and managers realize this grim fact. They are working night and day to win the war and win it as quickly as possible. They do not want this war to last "a minute too long" for a son, brother, husband, sweetheart or friend.

The point for all of us to remember is this: Even when the newspapers tell us of new Allied victories on the fighting fronts *we must not slacken our pace on the home front.* We must do all in our power to shorten the war, to save lives.

ETHYL CORPORATION
Chrysler Building, New York City

Our war job is manufacturing Ethyl fluid for improving the antiknock quality of fighting gasolines —*and delivering it on time.* Ethyl workers have been awarded the Army-Navy "E" for "outstanding achievement in producing war equipment."

s profits tax exemptions, wouldn't n much by this, but the war babies uld.

Renegotiation authorities are worried, t because they are on the defensive, ond because Ways & Means is a tty conservative committee that usu- gives business men a sympathetic . Odds are, however, that the com- ttee won't recommend any elaborate anges in the present law.

▼

raft Policy Clarified

In an effort to make its "work or ht" policy function, the War Man- wer Commission has tightened up gulations on both its "nondeferrable" d its "critical" lists. Effectiveness will pend largely on the attitude of local aft boards.

Under the new rules, 3-A dependency assifications for men in nondeferrable ccupations will be canceled on Sept. unless they register for another job ith the U. S. Employment Service, ill become invalid on Oct. 15 in any se. No man with a "critical" skill ay be ordered to report for induction ntil USES has been given 30 days to eport on his qualifications or to find im another job.

▼

ostwar Quandary

WPB's postwar planners are particu- rly worried over one angle of the re- onversion problem. What if the first ig contract cancellations fall on manu- acturers whose normal peacetime pro- uction is in the "nonessential" cate- ory?

Everybody is agreed that as raw mate- ials are released they should go first to he manufacturers of the most essential ivilian items. But this leaves in the urch the manufacturer of lipstick cases, or instance, who loses his Army order or shell casings long before the over-all aw materials situation has eased suffi- iently to permit use of brass for lip- ticks.

▼

$1,000,000,000 Canceled

Latest item in the box score on gov- rnment contract cancellations covers Navy cancellations, totaling $1,221,- 297,946, from Mar. 17, 1943, to July 31, 1943:

Canceled and replaced by new con- racts in same plant $603,072,021.

Canceled and replaced by new con- racts in another plant $203,247,206.

Canceled and not replaced by new contracts $414,978,719.

Conversion Tangle

The partial shift from tankers to escort vessels is slowing down shipbuilding. Builders of ship components are still sending pipes, valves, and engines to yards that ordered them months ago for oil carriers but need them no longer. In the meantime, similar components, ordered for escort boats, are not being delivered. Nothing has been done yet to straighten out the snarl, switch shipments to yards that need them.

▼

Featherbedding on the Skids?

Transportation Director Joseph B. Eastman has a good chance of succeeding in his campaign against full-crew laws, mileage limitations, and other devices established by labor to pad employment rolls on the railroads—the much debated "featherbed" rules.

Eastman, who always takes plenty of time to work up a temper, is fed up. He will encounter a lot of resistance from the unions, which have already pulled out of ODT's labor-management advisory committee, but with the help of the Interstate Commerce Commission, he can probably put it over.

Railroad managements will be tickled to see featherbedding upset, but they will move cautiously. Individual roads have always been afraid to start a concerted movement for fear they would wind up worse off than when they started. Besides, it's almost impossible for the roads to present a united front on featherbedding, because practices vary from district to district.

▼

CCC May Lose a Job

Buying of foreign fats, oils, sugar, tea, cocoa, Argentine turkey, Mexican chick peas, etc., by Commodity Credit Corp. may soon be transferred to the Office of Economic Warfare, with Reconstruction Finance Corp. financing, for closer correlation with food development programs in South America and Africa (BW—Jul.31'43,p104). Decision is up to OEW Administrator Leo T. Crowley, who is being urged to take the assignment by staff officials who gripe that CCC profit-making on some imports is cramping their development program.

Marvin Jones, War Food Administrator, seems indifferent to possible transfer; so is J. B. Hutson, president of

Distributors to Air Squawks

WPB'S topside is increasingly convinced that much of the manpower trouble stems from the lack of facilities for comfortable living, that the supply of civilian goods and services must be stepped up—and better distributed—if war workers are to be kept on the job. WPB'S chief, Donald M. Nelson, Arthur Whiteside, head of the Office of Civilian Requirements, and two market research moguls—George Gallup and Elmo Roper—have their heads together on the problem.

• **Important Items**—OCR is asking for a lot more of practically everything in the first quarter of next year—and expects to get a fair percentage. Under the heading of new business are 500,000 electric irons and 12,500 electric ranges with more to come later. Both will be strictly for replacement and for new users who can't get by without them.

OCR will ask for a 50% increase in enamelware, for a doubling of output of most galvanized ware (garbage cans, ash cans, wash tubs, wash boilers, pails, and buckets). There will be more straight pins, razor blades, caskets, electric appliance cords, and fuse plugs. There will be slight reductions in the programs for hairpins and bobby pins, safety razors, metal screening, and stoves other than electric.

• **Looking Ahead**—Many electric appliances are being left until later. Best guess at present is that some washing machines will be programed in the second quarter of '44, some refrigerators in the third.

WPB is even beginning to wonder whether it might not be warranted now in thawing inventories of parts of some less "essential" civilian items. In a good many lines—the lawn mower is an example—there are enough parts lying around, earmarked for maintenance and repair, to allow fairly substantial production without any new drain on raw materials.

• **Powwow on Distribution**—Biggest problem is how civilian goods will be distributed once they are made. OCR is setting the stage for a three-day mass meeting at which wholesalers and retailers will have a chance to air their woes. If gripes at the meeting warrant them, new distribution controls are certain. This blow-off is now scheduled for the end of this month—significantly, after Congress is back in session.

WASHINGTON BULLETIN (Continued)

CCC. This indifference is a reflection of sentiment in congressional banking committees to the effect that CCC may be better off in the end if it gets out of the importing business (BW—Jul.31 '43,p104). Traders doing actual buying and selling for CCC don't like the prospect; some say that if the transfer comes off, they will return to private business.

▼

Stay of Execution

Acquiring land for some new installations, the Coast Guard recently included, by mistake, the site of Brewster Aeronautical Corp.'s main plant in its condemnation proceedings. Navy officials got a hollow laugh out of it. They say Brewster has given them little besides production headaches and labor trouble (BW–Sep.4'43,p88), that maybe it would have been a good idea to let Providence use its own judgment. Nevertheless, the Navy intervened and stopped proceedings.

▼

Packing Off Home

So many big shots (and little ones, too) are leaving the War Production Board that Donald Nelson may soon issue a special appeal asking them to stay.

Many are looking ahead to peace, therefore going back to private industry. And there are two other reasons:

(1) The recent speech by Civil Service Commissioner Arthur S. Fleming pointing out that "hundreds of thousands" of the government's 1,700,000 war service employees will have to be released after the war.

(2) Lower-bracket employees figure that they'll be money ahead by quitting high-priced Washington.

▼

Kaiser Hits Rough Air

When Henry J. Kaiser and Howard Hughes teamed up last year to build the world's largest flying boat, they promptly discovered that personnel was giving them as many headaches as engineering.

Trouble at the Culver City (Calif.) plant boiled over this week with the resignation of two top executives—the general manager, Edward G. Bern, and the works manager, John W. LeDuc. As they walked out, Kenneth F. Ridley, chief engineer of Hughes Aircraft Co., stepped into full control.

Although other manufacturers looked somewhat hopefully for signs of the long-predicted split between Kaiser and Hughes, they found the millionaire team still intact. Kaiser is reported to have told Hughes that he wants the sport man-flyer-manufacturer to see the project through to a finish and make all future decisions on operating policy. Kaiser himself will continue as partner and chief sponsor.

▼

Alaskan Air Regulated

Air transport which displaced the mushers in Alaska has passed its free-for-all phase. Civil Aeronautics Board will set up an office there to administer the law for the 21 operators recently certified. They are doing a job for the Army, and several may get additional planes. (Alaska, Hawaii, and Puerto Rico are under U. S. domestic regulations.)

▼

Pipeline for Gas

WPB's approval of a new 1,200-mile natural gas pipeline from the Southwest to the Appalachian area assures consumers in the Northeast of greater supplies in the winter of 1944-45. The new line, to be built next summer, will have a capacity of 200,000,000 cu.ft. a day. Two applicants have asked to build the line. The Tennessee Gas & Transmission Co., first to file its request, proposes to build the line from Corpus Christi, Tex., to West Virginia. Hope Natural Gas Co. would build its line from Kansas' Hugoton Field to West Virginia. The Tennessee company is reported to have the inside track.

▼

Capital Gains (and Losses)

Acting for OPA, Solicitor General Charles Fahy has asked the Supreme Court to review the lower court decision upholding rate increases by the Washington Gas Light Co. (BW—Jul.31'43, p19). This opens the way for a final ruling on the question of whether Congress meant price stabilization to apply to utilities.

Striking indication of the growth of U. S. shipping: As of today, slightly more than 100,000 merchant seamen are registered with War Shipping Administration. By the end of the year, the total is expected to be up to 200,000.

The Free French have put in a request for civilian radio tubes for one of their Pacific islands (population 4,000) which is greater than allocations to most Latin-American countries. The Office of Economic Warfare is frankly puzzled.

—*Business Week's Washington Bureau*

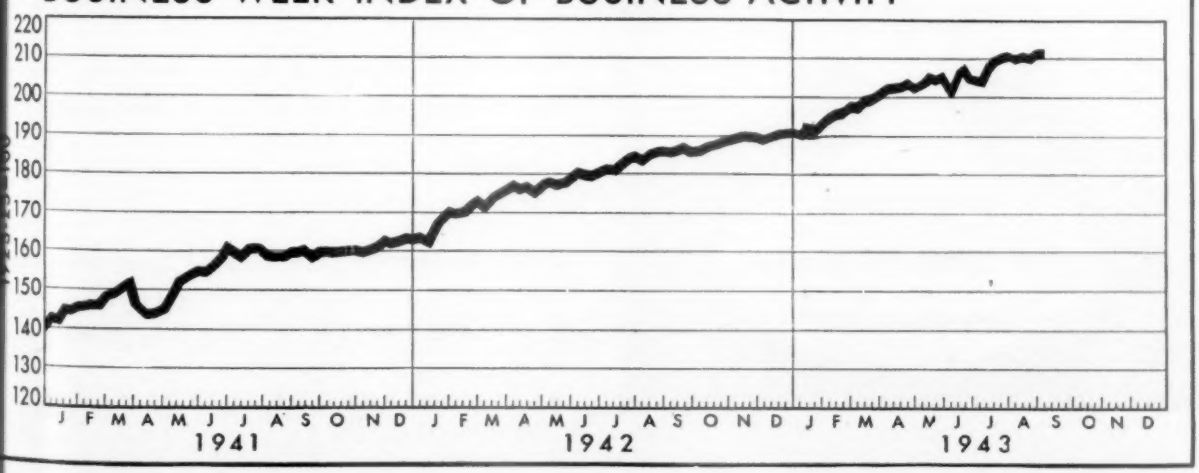
FIGURES OF THE WEEK

	§ Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
THE INDEX (see chart below)	*212.5	†212.4	211.0	198.4	186.7
PRODUCTION					
Steel Ingot Operations (% of capacity)	100.3	99.4	97.8	99.1	96.4
Production of Automobiles and Trucks	15,350	20,055	19,250	17,460	16,865
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands)	$7,851	$7,322	$7,058	$14,335	$35,108
Electric Power Output (million kilowatt-hours)	4,351	4,322	4,241	3,947	3,673
Crude Oil (daily average, 1,000 bbls.)	4,235	4,196	4,203	3,887	3,683
Bituminous Coal (daily average, 1,000 tons)	2,022	†2,002	2,028	2,113	1,918
TRADE					
Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars)	83	82	81	78	85
All Other Carloadings (daily average, 1,000 cars)	67	67	67	52	65
Money in Circulation (Wednesday series, millions)	$18,571	$18,303	$18,014	$16,154	$13,250
Department Store Sales (change from same week of preceding year)	+1%	†+14%	+11%	+26%	−13%
Business Failures (Dun & Bradstreet, number)	26	45	51	103	122
PRICES (Average for the week)					
Spot Commodity Index (Moody's, Dec. 31, 1931 = 100)	247.0	246.8	244.9	248.6	232.0
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	160.6	160.5	160.9	159.3	154.1
Domestic Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	215.7	215.2	210.9	208.8	183.1
Finished Steel Composite (Steel, ton)	$56.73	$56.73	$56.73	$56.73	$56.73
Scrap Steel Composite (Iron Age, ton)	$19.17	$19.17	$19.17	$19.17	$19.17
Copper (electrolytic, Connecticut Valley, lb.)	12.000¢	12.000¢	12.000¢	12.000¢	12.000¢
Wheat (No. 2, hard winter, Kansas City, bu.)	$1.44	$1.41	$1.40	$1.42	$1.17
Sugar (raw, delivered New York, lb.)	3.74¢	3.74¢	3.74¢	3.74¢	3.74¢
Cotton (middling, ten designated markets, lb.)	20.40¢	20.53¢	20.60¢	21.12¢	18.62¢
Wool Tops (New York, lb.)	$1.368	$1.370	$1.356	$1.266	$1.203
Rubber (ribbed smoked sheets, New York, lb.)	22.50¢	22.50¢	22.50¢	22.50¢	22.50¢
FINANCE					
90 Stocks, Price Index (Standard & Poor's Corp.)	93.9	93.2	92.7	87.3	68.6
Medium Grade Corporate Bond Yield (30 Baa issues, Moody's)	3.82%	3.82%	3.81%	4.02%	4.27%
High Grade Corporate Bond Yield (30 Aaa issues, Moody's)	2.69%	2.69%	2.69%	2.77%	2.80%
U. S. Bond Yield (average of all taxable issues due or callable after twelve years)	2.29%	2.28%	2.28%	2.33%	2.34%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average)	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate)	⅝–¾%	⅝–¾%	⅝–¾%	⅝–¾%	⅝–¾%
BANKING (Millions of dollars)					
Demand Deposits Adjusted, reporting member banks	35,733	35,145	33,746	31,305	27,217
Total Loans and Investments, reporting member banks	46,739	46,719	46,954	41,470	34,457
Commercial and Agricultural Loans, reporting member banks	5,735	5,739	5,678	5,963	6,595
Securities Loans, reporting member banks	1,485	1,418	1,429	927	874
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks	34,100	34,209	34,464	28,657	20,580
Other Securities Held, reporting member banks	2,935	2,902	2,919	3,296	3,495
Excess Reserves, all member banks (Wednesday series)	1,150	1,110	1,030	1,786	2,262
Total Federal Reserve Credit Outstanding (Wednesday series)	9,540	9,137	8,582	6,130	3,542

*Preliminary, week ended September 4th. † Revised.

†Ceiling fixed by government. § Date for "Latest Week" on each series on request.

BUSINESS WEEK INDEX OF BUSINESS ACTIVITY



He has a promotion to report. Or a week-end leave coming up. Or it's his mother's birthday.

Evening is about the only time he's free to call and it's important to him.

Will you do your best to avoid Long Distance calls after 7 at night, for the sake of millions of Joes — and Josephines? They'll appreciate it.

BELL TELEPHONE SYSTEM

aly—a Turning Point

And other crises lie ahead: Break in Axis will hurt morale Germany and in its satellite states, while U. S. faces its own ubles with manpower and over-all production.

aly's surrender this week precipi- another peace scare, but this time stock and commodity markets, h usually sell off in the face of news implies a shortening of the war, ted only mildly to Wednesday's s.

ilian Morale Question

rtly, the mildness of the immediate tion is explained by the fact that markets had already discounted the in capitulation. More importantly, ever, it reflects a new awareness in business community that military evements are less vital factors in the equation than the political develop- ts to which they may give rise (BW 31'43,p13). Business cannot be ed just to the nice calculations of rent military strategy—the size of ics, strength of defensive positions, th of supply lines, and quality and ntity of arms; they must provide shion for the vital political develop- ts that can lengthen or shorten the

icly showed that military opposi- to us in the Mediterranean would solely with the Germans in any ; that prospect has not been altered he least by the surrender of Italy. the big unanswered question now hat will be the effect of the sur- er on German morale and on that Hitler's Balkan satellites?

Meanwhile, autumn is approaching— with it the rain, cold, and mud ch will tend to slow up purely mili- operations. At home, autumn will k the last lap of the struggle to n peak munitions production—high- ted this week by the stepup in steel rations to 100.3% of increased ca- ty, which will mean a record ton- output.

Autumn will mark other turning nts. Millions of youngsters who took porary summer work are returning school—thus aggravating the man- er shortage.

lso, after all the erratic ups and ns of weather, completion of har- soon will tell just how much better average, but worse than last year, crop yields will prove. Key ques- is how much 1943-grown supplies ed for 1944 will be down from this (page 14)—and so how much live- stock-dairy-poultry output will be reduced a year hence.

Soon, and earlier than usual, the acceleration in retail sales will begin. Despite the continually contracting supply of essential consumer goods, total dollar volume may again rise to new highs, since excess purchasing power provides a sellers' market for whatever ingenious producers and merchandisers can substitute in the way of materials, higher grades, and luxury goods for more normal civilian supplies.

Steps to Control Manpower

Current business attention focuses chiefly on the strides toward more effective manpower administration which Washington is taking in its West Coast experiment (page 96). Assurances that contracts will be diverted where possible to areas of lesser labor stringency, steps to contract nonessential civilian production, and the move to close aircraft-shipyard wage differentials constitute belated and as yet limited recognition that manpower administration requires powers extending into the domain of procurement, production, wage, and other agencies.

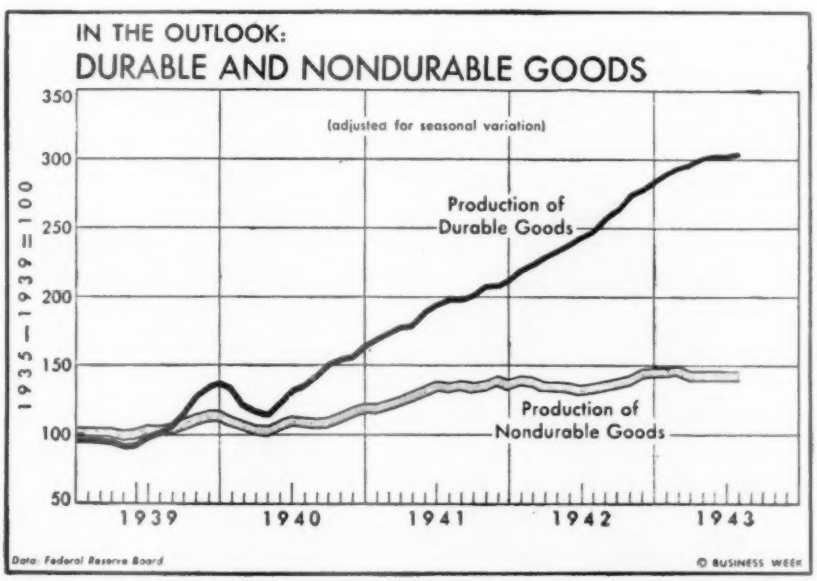
Realization of the vital role of transport, laundry, health, food, etc., in mobilizing war manpower will presumably, at long last, lead to protection of labor forces for such essential services.

Integration of occupational deferments with schedules of arms manpower needs, ceilings on plant employment to combat labor hoarding, and establishment of plant priorities on available labor instance the detailed and painstaking technique required for efficient allocation of labor.

And finally, adoption of the Buffalo plan for all five major West Coast centers marks the acceptance, even though in limited form, of the principle of centralized hiring which forms the keystone for all advanced wartime control of the labor market.

Things to Watch

Some of the sensitive business indicators have been throwing up mild danger signals. The index of seven spot



The predicted flattening out in durable goods production (BW—Sep.12, '42,p13) signifies a new phase in the war economy—total industrial output is just about at its ceiling. That conclusion is inescapable, whatever the inevitable deficiencies in wartime indexes. Increasing activity in arms-related chemicals and rubber has offset drops in textiles, shoes, printing, and other nondurable lines, while reductions in lumber, cement, and similar hard goods have almost counterbalanced gains in aircraft, ships, and other munitions. The manpower shortage which already limits total output soon may force a decline in the over-all figures.

farm prices, after holding to around 210% of the August, 1939, level for about five months, has risen five points in the last three weeks. Carloadings two weeks ago crossed the 900,000-a-day level, hinting at a possible freight pinch at some points during the peak season next month. And money in circulation during the past month has resumed its accelerated upward pace, rising over the $18,500,000,000 mark—more than $10,000,000,000 more ready cash in consumers' hands than three years ago.

Incidentally, the National War Labor Board has shed new light on the statistics being used in the current controversy over what has happened to wages (BW—Aug.28'43,p120). NWLB breaks down Bureau of Labor Statistics data showing a 6¢ increase in average hourly earnings of factory workers between October, 1942, and May, 1943. BLS derives this figure by dividing total payrolls by man-hours worked, and so it is not a measure of straight-time wage rates.

NWLB finds that of the 6¢ rise, only 0.6¢ was due to increases in the price of labor—basic hourly scales—approved by the board. About 1¢ was due to the averaging out of overtime pay for longer hours, and 1.6¢ to the shift of workers to higher-paid, more essential lines. The remainder, 2.8¢, NWLB attributes to incentive wage rises, merit increases, upgrading, and similar factors; however, part of the 2.8¢ may be wage "bootlegging" by employers.

Enough Meat?

Industry says there could be if abolition of controls permitted normal feeding and marketing. Prices are big problem.

Only in a crisis can stockmen and feeders, commission men and packers, wholesale market men and butchers make common cause. Right now, the meat industry is face to face with its biggest crisis. That's why 1,300 of the practical men who graze the cattle, slop the hogs, or handle the resultant meat products could meet in the Kansas City auditorium one day last week and agree unanimously on a 15-point program which they were sure would guarantee ample meat at fair prices.

• **Want Controls Abolished**—Those 15 resolutions, which blistered WPB, OPA, and the War Food Administration, boil down to a single simple formula: Remove all government regulation of the industry except slaughter permits to control output of meat and consumer rationing to control consumption. This is the same formula which the Livestock & Meat Council recommended five months ago (BW—Apr.10'43,p15).

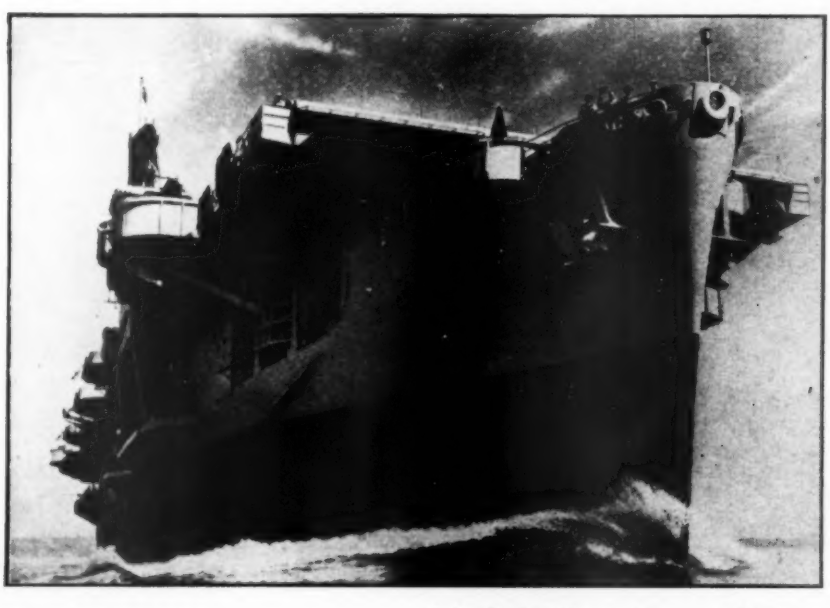
The industry contends that adoption of this simplified system would not mean an increase in prices. It argues that after the government took what it needed from the total kill—at its o price—it could regulate civilian dema for the rest by adjusting coupon po values and thus hold civilian prices at below present levels.

• **Opposing Opinion on** Prices—Se tors and congressmen who sat on t platform in Kansas City may try to p the industry's program into effect wi they get back to Washington next we but they will meet the violent opp sition of Administration economists w argue that price controls at least a vitally needed, if the whole program keep the cost of living down isn't goi to be undermined. They contend th prices would soar under the progra proposed by the industry, and that b cause a good many stockmen are gam bling on just that chance, meat supplie are being withheld from the marke How else they ask can you reconcile th absence of steaks at the corner butch store with the record livestock popul tion out on the farm, even taking int account the heavy but unrevealed go ernment purchases?

Last week's suspension for tw months of slaughter quotas and meat i ventory restrictions is a step in the rig direction, as far as the industry is co cerned, but nothing to cheer abou Packers who have cut back operation find it tough to expand again for ju two months, while in many areas it impossible to find space in warehouse already heavily stuffed with governme purchases.

• **Feeding Is Big Problem**—Althoug long-pull prospects for pork and lam supplies are no better than for catt the beef situation commands the mo attention. Dept. of Agriculture est mates cattle on feed Aug. 1, 11% belo 1942 and 28% below 1941. Grass ca tle are coming to market now, bu feeder cattle passing through the fo largest markets in the first two weeks August were 47% fewer than in 194 If feedlot operators buy range cattle no for feeding, there will be beef next wi ter. If these animals should instead b slaughtered at range weights, beef w be plentiful for a few weeks but aft December practically unobtainable eve by the military. Slaughter is the onl alternative to feeding.

The feeder is currently marketin finished cattle at an estimated loss o one dollar per hundredweight. Th burned, he fears long-threatened ceiling on live cattle. He is also afraid th supplies of grain and protein concen trates might run short. Grounds fo misgivings about feed supplies may b found in the Aug. 1 official crop repor The 1943 corn crop is estimated a 300,000,000 bushels below last yea wheat down 147,000,000 bushels, oth feed grains down 233,000,000 bushe and hay down 6,000,000 tons. Wi livestock population 10% higher tha 1942, total feed supply is 11% small



BABY FLAT-TOP

One of the newest ships of Uncle Sam's fleet is an escort carrier completing shakedown cruises out of Todd shipyards on the Pacific. Pointing a trend toward smaller warships, more than 50 "pocket" carriers have joined the Navy since war began—compared with only 15 full-sized types. First developed by Britain and the United States from converted tankers and freighters, escorts are now built from scratch to average 500 ft. long, to carry some 30 planes (standard ones carry almost 100).

ark Victory

Italy's fall aids cause but entails economic liabilities—even more momentous, it ens Russian showdown.

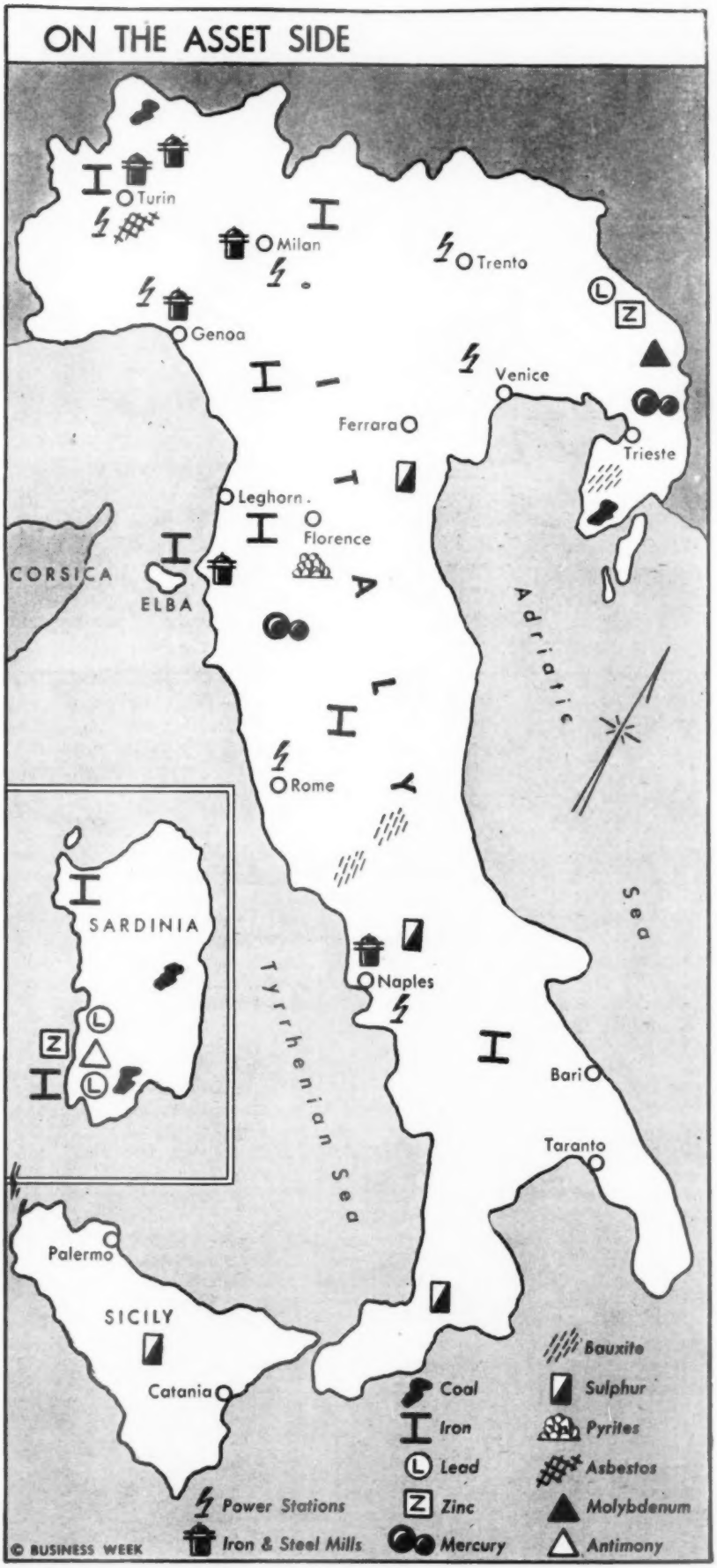
vast hole was knocked in the walls Hitler's European fortress with the of Italy. A large, albeit spiritless, was subtracted from the total s of the Axis. Allied bombers will oved much closer to southern Ger- even though the Nazis may not ce be chased back behind the Alps. nces of other German satellites' ping out of the war have been ly improved by the Italian example. some fairly important raw materials been gained (although the gain the Allies is less important in the run than the loss to the German nomy).

ay of Rejoicing—Thus the an- ncement of the capitulation of Italy Wednesday, coupled with the Rus- capture of the important steel city Stalino in the Red Army's headlong h to the West, gave the United Na- s their most triumphant day of the to date. Yet there were harsh notes the cheering.

The United States and England have yet, by Russian lights, opened the nd front in Europe. Red Star, Sov- army organ, only the day before an- ncement of Italy's surrender, de- ed that the Allied operation on the of the boot was occupying the ention of no more than six to eight man divisions; Russia has indicated onviction that nothing short of an on that will drain 60 Nazi divisions m the eastern front will be accepted the real thing.

Stalin Consulted—Meanwhile, there tangible evidence that British and erican leaders are paying more and re attention to the Russians politi- ly. President Roosevelt, at successive ss conferences, affirmed that progress being made in bringing about that g-expected meeting with Stalin. Too, n. Dwight Eisenhower received the roval of Moscow as well as Wash- gton and London on the terms of the nistice granted Italy's Marshal Pietro doglio.

Britain's foreign secretary, Anthony en, respected both in London and in oscow, is engineering the preliminary eting of the top American, British, d Soviet diplomats, and the eventual nference between Premier Stalin, me Minister Churchill, and Presi- nt Roosevelt. These meetings, grow- g out of the Anglo-American discus- ns and decisions at Quebec, will empt to resolve the many political ferences which the approaching vic-



SWARMING FOR GAS

Coming in the midst of a serious gas shortage, repeal of the pleasure driving ban is little help to most eastern motorists. And according to the petroleum administrator, Harold L. Ickes, western drivers also may soon feel the pinch because military fuel needs are now 25,000,000 gal. a day. In the New York area, motorists are trying to ease their ironic position by playing a new game which might be called "follow the tank truck." Spotting a tanker en route to service a dealer, the drivers fall in behind until its cargo is discharged. Then they all scurry in to buy the gas (above).

tory brings into sharp relief (BW–Aug.21'43,p15).

• **Sources of Anxiety**—As on the field of battle, the U.S.S.R. has seized the initiative from the Anglo-American entente. In the offing today is a pact between Russia and Czechoslovakia. It is possible that Soviet recognition of the French Committee of National Liberation missed beating the other United Nations' recognition only because of Anglo-American intervention. Fearing other commitments between European nations and the U.S.S.R., made without prior consultation with Britain and the United States, Eden has met with the foreign ministers of the exile governments that are headquartering in London. Russian moves may be countered or matched by the Anglo-American group.

This concern for future Europe, stimulated by unfamiliarity with the basic intentions of the Soviet Union, is evidenced by the emphasis currently being placed on the importance of the present closed alliance between the United States and Britain and on the need for formalizing and guaranteeing the permanence of this union. Of primary importance is an immediate agreement on objectives and the ways of achieving them by the United States, Britain, the U.S.S.R., and China. But of even higher importance in the long run is the question of world political leadership.

• **Isolation or Cooperation?**—Out of discussions between these four powers can come either a temporary union for the accomplishment of a single immediate objective—victory over Fascism—followed by separation, isolation, rivalry, and eventually further wars, or the beginning, at least, of cooperation between them for world reconstruction and preservation of peace.

Against this background, the seizure of economic resources in Italy and the crippling of Italian and German industry from the air have little permanent importance. Each factory destroyed, each railroad damaged, and each harbor clogged with battered shipping may have eased the advance of armies, but each must be chalked on the operations map of relief and rehabilitation agencies, and of the Allied military government staffs, literally as problems that now have to be dealt with.

• **Assets and Liabilities**—The conquest of Italy's raw-material and agricultural resources actually adds little to the United Nations pool. Italy claims surpluses of some farm products but has deficits in meats, wheat, and other foods (BW–Jul.31'43,p15). In exchange for low-grade iron and a surplus of sulphur and mercury, occupation authorities must provide tonnages of chemical woodpulp and coal, among other things, if Italian economy is to be kept in balance.

Not only for economists, but also for prime ministers and presidents, the speedy victory in Italy carried terrifying potentialities. And the possibility that these tremors will be duplicated on other fronts as the United Nations striking power is unleashed lends urgency to the problem of recognizing and settling the political issues which today stand between the United Nations.

No Dream Car

Detroit is convinced th problems of reconversion—an the gambles involved—will n any and all big ideas.

Convention speakers and Sunday s plement writers can say all they want about the postwar revolution in automobile production—when Detroit lets it think about the future nowadays, thinks pretty definitely in terms of t prewar status quo.

Most important consideration in ev automobile man's mind is to get b into production as rapidly as possibl and that fact alone militates against a possibility of the miracle motor vehicl coming off the production lines ri after the last war weapon rolls away.

• **Biggest Market Yet**—Speed is regarde as essential as soon as Washington giv the go-sign, because the auto mak envision a seller's market beyond the wildest dreams, and although there w be plenty for all, the man who taps first stands to get an even better shar

"Normal" automobile production around 4,000,000 cars a year; figured these terms, the cumulative "defici today stands at about 7,000,000 cars already 50% above the all-time recor output of passenger cars which w rolled up in 1929. Furthermore, th buyers who want those 7,000,000 ca have the money to buy them. With $7,000,000,000 market virtually in th bag, the auto makers will be distinctl leery of launching models that migh flop.

• **Lots of Angles**—Cars will be somewha lighter, but the bodies made of alumi num or other light metals won't com into use until the cost of these materia matches steel. The cost factor will als prohibit use of engines burning aviation gasoline; they're still too expensive t build, even if they do generate twice th power with half the fuel. And motor won't be mounted in the rear becaus the companies which could afford t take the big gamble on public prefer ence, inherent in such a radical change haven't any inclination to do so.

Some of these long-predicted change will eventually materialize, but the ca buyer can't look for them in any near future—unless, of course, they are forced by the entrance of new competition in the field. Henry Kaiser has talked o putting a jeep-like auto into the postwa market. Shipbuilder Andrew Higgins i also reported thinking about invading the auto arena; so are Consolidated and Lockheed from the aircraft field.

• **Newcomers Might Gamble**—Since the cost of tooling for such new entrants in the field would be no more, whether it was designed for radical or orthodo

odels, they might well decide to put eir money on some engineering fea- es of an advanced character—new- e springs, for example, would be a ely bet—even if they hewed pretty sely to conventional body lines to oid the appearance of freakishness.

Detroit isn't really worried about new mpetition in the field. For one thing, y newcomer would face the problem locating production facilities—includ- g parts suppliers, the most substan- l of whom are pretty closely affiliated ith existing companies. He would ve to locate those facilities in the cen- l industrial area where he could match etroit's shipping costs in obtaining w materials and distributing the final oduct to the big mass markets. The acific Coast, for example, boasts only 0% of the nation's auto market, and 's a good $200 in freight rates away om the big eastern markets.

• **Dealers Are Tied Up**—Much more erious a problem for prospective new r manufacturers is posed by their lack f dealer systems. The 16 established uto makers have managed to bring their ealer organizations through the war ith remarkably few fatalities; the agen- es that have folded wouldn't account or 10% of normal total volume. New- omers would have a hard time luring ny of the surviving dealers away, par- icularly in view of the fact that they ouldn't be able to match the existing ompanies on car deliveries. Kaiser has alked about using gas stations for dis- ributors, but their lack of showrooms, arts stocks, repair facilities, and capital akes them a dubious bet.

Whether or not there is new compe- ition in the automotive field, prices will e considerably higher than they were efore the war because of the almost ertainly higher wage scales. If present ates are maintained, car quotations may e as much as 30% above 1942 levels, ay some Detroit experts, for equivalent uality.

• **Live and Let Live**—If Detroit doesn't xpect any serious competitive threat in he automotive field, neither does it ontemplate venturing into foreign fields itself—aviation, for example—on any big scale. Auto men have acquired a lot of know-how in aircraft manufacture dur- ng the war, and research in the field will unquestionably be continued, but any eavy commitments are likely to be postponed until the profit possibilities of the aviation market prove definitely worth cultivating. Present overexpan- sion of aircraft production facilities and equipment is a further deterrent.

When the war ends, Detroit will have its eyes on only one goal—cashing in on that unprecedented demand for new automobiles. The severe disarrangement of manufacturing facilities is the big- gest impediment to the rapid attain- ment of that objective. A large share of what solid planning the auto men are doing now revolves around means of restoring prewar production facilities.

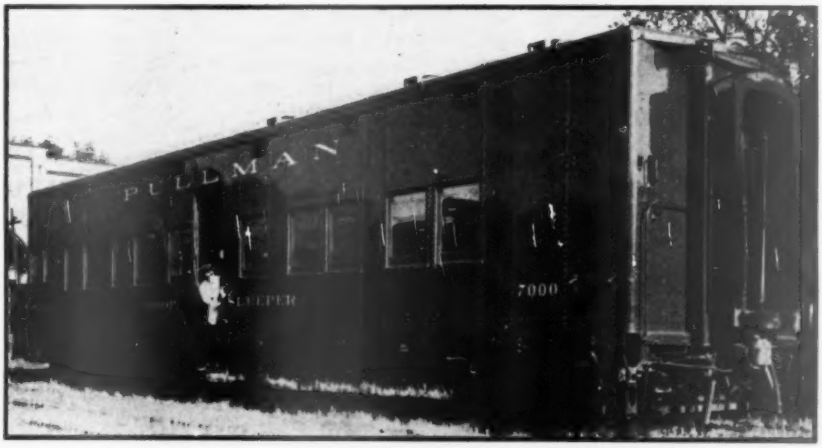
• **Shop Problems**—First, machines have to be retooled from war to civilian uses. Gaps in production lines caused by scat- tered sales of equipment have to be filled. Facilities have to be unscram- bled and rearranged in automotive pro- duction order. Peacetime tooling for the machines has to be brought out of warehouse or reordered.

Those are details. More worrisome is the job of finding actual space for oper- ations. Automotive plants are nearly all filled today by arms output facili- ties, most of them government-owned. Warehouse space isn't available for them. If they are moved into the open under grease, hard-boiled government inspectors may refuse to accept them, imposing big charge-backs on the com- panies. If they are left in place on fac- tory floors until official inspection and removal, the unfed postwar auto market may starve to death.

• **Way Will Be Found**—But the auto companies optimistically believe a way will be found to retool in a hurry, have cars for sale in six months—maybe even three—after the peace.

30 HOMMES—0 CHEVAUX

Designed specifically as troop carriers, the first of 1,200 new triple-deck Pullman sleepers to accommodate 30 men will go into service next month, stepping stones toward reduced sleeping car rates after the war. First passenger cars to be authorized for construction since the war, they are Pullman-Standard Car Mfg. Co.'s products, incorporate the use of non-critical materials where possible, and cost but a fraction of standard Pullman sleepers. Resembling continental coaches, the cars have side instead of center aisles and wide seats which unfold into two tiers of berths, the third being fixed for use at any time.



No Dream House

Materials men look upon "home of tomorrow" as impractical; yen for traditional styles still lurks with owners, they say.

"Advertisement budgets once used for the purpose of selling merchandise to the public may have to be applied widely in reverse to combat the wild and weird dream-world products which uncontrolled and ill-advised publicity are creating today in the minds of Americans."

• **Backed with Dollars**—Thus does the Bryant Heater Co. of Cleveland throw its weight behind the growing resistance of conservative elements in the building materials industry to the dreamier concepts of the house of tomorrow. Bryant, in addition, is backing up its sentiments by allocating a portion of its advertising

SHARING THE RIDES

Atlanta's assistant chief of the Office for Emergency Management, D. B. Wright, applies for a free lift under the first ride-sharing plan for government autos and planes. Run by OEM, the scheme is a trial horse for a national pool of federal machines—similar to those formed by war workers. The system includes a dispatching center (above); clerks keep track of all trips made by 1,000 vehicles operated by 61 federal agencies. Thus, when Wright's application goes through, he may catch a ride with an OPA or Army man going his way. The experiment, winding up this month, is aimed at saving 40% in auto mileage in the southeastern region.

budget to advocate that very concept.

Materials men assert that these ideas are fostered principally by people outside the industry who have no responsibility for providing at attainable prices the dream houses that are making the headlines.

• **Mountain-Top View**—The boys who actually have to ship the building material are annoyed because their market is being unsettled. Plain folks who have been taken up on the mountain top by the industrial designers, plastics fabricators, or prefab enthusiasts are hard to lure down to earth. They have acquired a sales resistance to present-day homes at achievable prices.

Materials men say that actually the average man and his wife would not buy one of these house-of-the-future units, because they really prefer something traditional. But the consumer's belief in colossal housing values to be offered after the war makes him scowl at price levels of today or of the foreseeable future.

• **The Buyers' Wants**—Results of a survey made by Crane Co. (BW—May 15'43,p94) tell their own story. Almost 200,000 consumer-preference questionnaires went out through the mail and through dealers. Returns ran higher than expected.

Everything about the Crane survey exposed the public to novel ideas. The fellow who got a questionnaire also received a booklet called "After V Day." This showed color photographs of last-word kitchens, bathrooms, and heating plants. But also it showed color sketches of 20-odd experimental ideas. Most of these were pretty radical—a single-unit lavatory-bathtub-closet, laundry trays with built-in electric washer, and so on.

• **Plain Tastes**—Despite this deliberate effort not to discourage any young ideas they might have, the consumer and his wife turned out to be tories at heart. They turned down electric unit heaters in the ratio of 10 to 3, preferred basements to ground-floor utility rooms 11 to 5, went 7 to 1 for separate kitchens vs. kitchenettes, voted their preference for kitchen counter tops in the proportion of 9 for linoleum, 5 for stainless steel, 3 for glass.

Best description of the troublesome dream house that one manufacturer has been able to piece together is that it is roomy, beautiful inside and out, radically different in its construction. It is far superior to present-day houses as a shelter. It overflows with space-saving, labor-saving gadgets. And it sells for $2,500.

• **Not Yet in Sight**—The principal flaw in the dream house, according to the established outfits, is its complete impossibility. No products or processes now in existence or in sight can alter greatly the values or basic features that everyday housing can offer for the mass market. No revolutionary changes are in prospect. Best guess for the immediate postwar small house is that it will be practically like its 1941 predecessor, but with small accessories souped up to satisfy the human desire for novelty.

The Producers Council, association of the major building material makers, has gone on record against that dream house, while urging a steady program of improvement in products and processes.

Tax Bill Snagged

Draftsmen aren't putting their hearts into it now, but here are a few possibilities to watch when the measure emerges.

Although Treasury officials and congressional leaders are going through the motions of preparing for a new tax bill, their hearts aren't in it. All of them realize that there's no chance of writing a bill that will raise the $12,000,000 extra revenue requested by President Roosevelt. At the same time, none wants to take the responsibility of refusing to back a deflationary tax program. Hence, all they can do is follow the tactics they used last year—belabor each other with slapsticks until responsibility is lost in the general confusion, then settle for whatever tax increases look expedient.

• **Moderate Rise Seen**—What will come out of the rumpus is anybody's guess, but the chances are that tax increases will be comparatively light. At present, the better-than-even-money bets stack up like this:

(1) Moderate boosts in the middle and lower brackets of the individual income tax. The first bracket surtax is likely to go up to 16% (it's 13% now) with corresponding jumps in succeeding brackets. Rates at the upper end of the income scale won't be increased much, if at all.

(2) Moderate increases in the corporate income tax. Most congressmen are willing to push the combined normal and surtax from 40% to 45%. They might let it go up to 50% if the new bill also broadens exemptions and grants new relief provisions.

(3) An increase in excise tax rates and extension of excises to a new list of commodities. The big problem here is not getting congressional approval but discovering new places to impose excises.

• **Postwar Reserves**—Even-money bets for the next tax bill include at least three

measures that would brighten the lives of taxpayers:

(1) Some sort of provision encouraging corporations to set up reserves for postwar contingencies and reconversion. Likeliest method would be to raise the postwar refund on the excess profits tax from 10% to 15% or 20%.

(2) Combination of the 3% Victory tax on gross income with the regular income tax so that taxpayers won't have to make two separate computations.

(3) Simplification and improvement of the machinery for collection at the source.

• **Other Possibilities**—Long shots are practically innumerable because there's no telling what the Treasury and Congress will settle on in their desperation. Ideas that will be debated but, in all probability, rejected include:

(1) The spendings tax. This is the Treasury's well-beloved brain child, but it hasn't received much sympathy from Congress or from practical politicians on the Administration team, like Economic Stabilization Director Fred Vinson.

(2) Forced savings, either in the form of tax deductions for voluntary bond buying and other noninflationary spending or in the form of compulsory bond buying (more precisely called "forced lending").

(3) The sales tax. Bitter opposition from the Treasury is likely to kill this proposition again, but the retail sales tax has some stubborn supporters in Congress. If the Treasury insists too noisily on a big-yield bill, Congress might jam through a sales tax to take the wind out of Internal Revenue's sails.

• **Yield Is Doubtful**—At this stage of the game, nobody knows what new revenue the final bill will bring. Chairman Robert L. Doughton of the House Ways & Means Committee and Chairman Walter F. George of the Senate Finance Committee think $5,000,000,000 or $6,000,000,000 is the upper limit. Without a sales tax or some form of compulsory saving, it will be hard to scrape up even that much.

Timing of the new bill is another big question mark. The Ways & Means Committee intended to start work as soon as Congress finished the summer recess, but it is now sidetracked on the probe of contract renegotiation. Doughton hopes to finish up with renegotiation in short order, but Ways & Means is a big committee with a reputation for getting out of hand. No one would be surprised if hearings on the new revenue bill didn't start before the middle of October.

TENNESSEE TARIFFS SET

Terminal tariff No. 1, just issued for terminal services on the new Tennessee River Waterway, was effective Sept. 1 for the new public freight terminal at Chattanooga and goes into effect Sept. 15 at new terminals in Decatur and Guntersville, Ala. The terminal at Knoxville is expected to be completed in time for the tariff to apply there Dec. 1.

Services will include transfer between

BORROWED HELP

Caught in the labor shortage vise, New York Central is following the example of southern railroads—importing Mexicans. At present, 750 are keeping Central's Big Four and Michigan Central lines in shape in Pennsylvania, Ohio, Indiana, and Michigan, with more expected later for the lines between New York and Buffalo. Under U. S.-Mexican agreement, the men are employed directly by the railroad to work six months for standard wages under union conditions, the company guaranteeing work for 90% of the period which may be extended if the shortage continues. Housed in labor camps (above) many are sampling local applications of good neighbor policy. In Ohio, for instance, housewives send cakes and food, while a church at Mentor (near Cleveland) provides space for recreation and classes in English (below) taught by Americanized Mexicans, veteran Central employees, who act as interpreters.

barges on the one hand and trucks and railroad cars on the other, and storage for a limited time in the freight houses. The rates and regulations are designed, the Tennessee Valley Authority said, to be in line with those on the Mississippi-Ohio-Illinois river waterways. They are uniform at the four terminals.

Thirty-three barge lines are operating on the Tennessee and connecting waterways; four are common carriers and the remainder are private or contract carriers. Service is available between Tennessee River ports and other points as distant as Chicago, Minneapolis, and Pittsburgh.

Aid from the Army

War Dept. joins ODT in move to clear Canadian shortcut for trucks carrying war essentials between Detroit and Buffalo.

Liberalization of regulations governing movement of goods by truck between Detroit or Port Huron and Buffalo across Canada is sought in a brief filed with the State Dept. by the Army and the Office of Defense Transportation, and presumably now on its way to Ottawa. The rules were relaxed a year ago (BW—Oct.10'42,p35), but truckers maintain they are still far too strict.

• **Time and Miles Saved**—As matters stand, truckers can haul war goods sealed in bond across the Ontario peninsula route between New York and Michigan, saving 115 miles and eight hours' travel time from the requirements of the Ohio route. They pay roughly $1 a trip in fees, equivalent to the wheel tax paid by Canadian vehicles.

But the definition of war goods, say the U. S. truckers, is so narrow that the rules permitting them to use the shortcut are of little practical value. In proof, they declare that of 145 trucks moving between Detroit and Buffalo, hauling mostly essential goods, only 20 to 25 use the Canadian route.

• **Open Tops Are Out**—The reasons given by the others for using the Ohio route brought sympathetic reaction from ODT Director Joseph B. Eastman and the Army. Open top trucks, for instance, cannot move on the Canadian route because they can't be sealed. Many types of war plant requirements cannot be handled. The shortcut cannot even be used to move military trucks or trailers going to Army camps if the vehicles are manned by civilian contract drivers, although such travel is permissible if Army drivers wheel them.

Truckers whose shipments include border-line materials which may or may not be classified as war goods are taking no chances. If they attempt to move the freight through Canada and some of the load is ruled nonwar goods, they are subject to fines, so they avoid difficulty by routing the truck around Lake Erie the long way. They say that taking the time to sort out a truckload of goods and classify it under the strictest interpretation of the rules isn't worth the time and mileage savings.

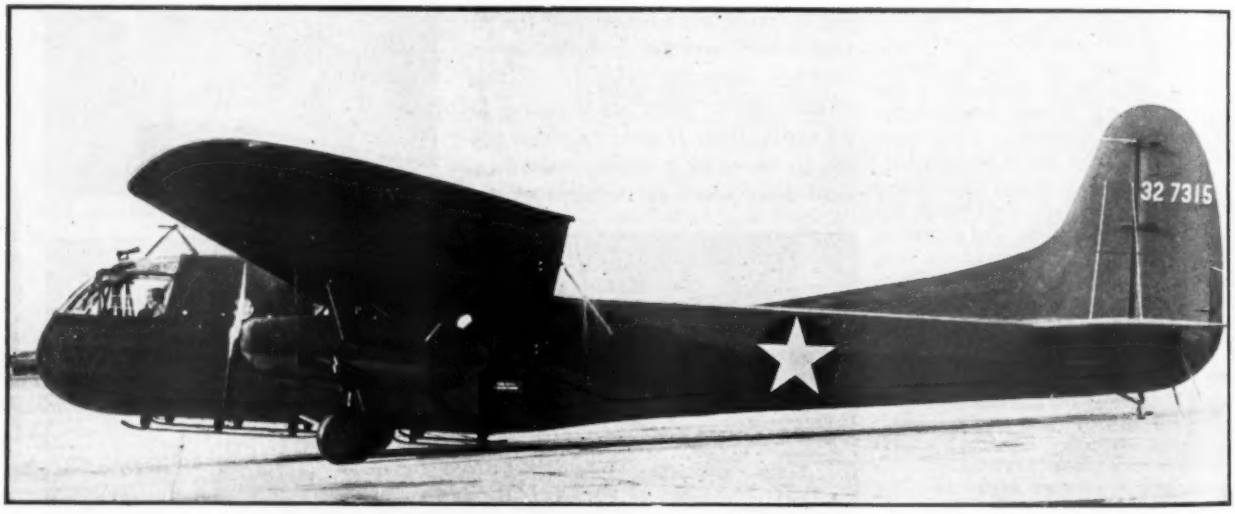
• **Railroads Blamed**—Detroit truckers blame Canadian railroad interests for the situation. The Canadian railroads, they say, are blocking all moves which might increase highway transport in the Dominion, whether by United States or Canadian truckers.

Gary Tax Fought

Truckers fear epidemic of city levies if proposed licensing measures are adopted; city seeks to pad street repair fund.

Truckers operating in the Chicago area are girding for a knockdown battle over a pair of ordinances expected to be passed Sept. 13 by the city of Gary, Ind., requiring all trucks making pick-ups or deliveries in the city to purchase a license costing from $5 to $25 a year according to the size of the truck.

• **For Street Repairs**—Newly elected Mayor Joseph E. Finerty claims the $40,000 revenue expected from the two proposed ordinances (one applying to residents, the other to nonresidents) is needed to buttress the city's $103,000 appropriation for maintenance and repair of its streets (once kept up with WPA labor). But truckers scoff that



GLIDERS WITH ENGINES

Powered with twin 130-hp. engines, big Army troop-carrying gliders are being eased out of the category of hitch-hikers. U. S. Army men have studied the giant German Meresburg gliders, which, equipped with six small engines, have increased their range and cargo capacity, and are now experimenting with the huge Waco CG4A. Used in the tests thus far have been six-cylinder air-cooled Franklin engines which can be detached within an hour. Although powered gliders have the advantage of extended range after being cut loose from their tow planes, Army engineers have another objective in mind—that is, to speed delivery from factories to air bases. Instead of being knocked down, shipped in crates, then reassembled, gliders in the near future may fly to delivery points, have their motors dismounted and then flown back by transport to power another flock on its journey from factory to air base.

THIS ISN'T NECESSARY—

"He thinks he's figured out a new accounting machine using the telephone dial!"

YOU CAN **RENT** COMPTOMETER EQUIPMENT!

• Put the phone back on the hook, George, and quit worrying. Because even if your priority doesn't permit you to buy Comptometer calculating machines these days, you *can* rent them for limited periods of time.

• Use that telephone to call your local Comptometer Co. representative. He'll be glad to explain this important and economical service. The Comptometer is made only by the Felt & Tarrant Mfg. Co., 1733 N. Paulina St., Chicago, Ill.

BACK THE ATTACK—WITH WAR BONDS

COMPTOMETER
REG. U. S. PAT. OFF.

ADDING-CALCULATING MACHINES AND METHODS

revenue from the tax on residents—even if enforced—will be negligible compared with the take from outside truck owners.

What truckers fear is that enforcement of Gary's proposed ordinance will start an epidemic of city license fees to add to their present burden of state taxes (BW—Aug.21'43,p34). Several other cities from time to time have passed ordinances taxing nonresident truck owners, but they were seldom enforced because they usually were phrased so that enforcement would have constituted a barrier to interstate commerce, hence would have been unconstitutional.

• **Revenue Measure**—But Gary officials are confident their carefully phrased ordinance will not be so construed. They contend that the tax is for the purpose of obtaining revenue and would not be a tax for the privilege of doing business in the city. The ordinance specifies that tax receipts be earmarked for street maintenance and repair and will not go into the general fund.

That municipalities in heavy war industries such as Gary are faced with increasingly heavy budgets for street maintenance and repair is indicated by a recent report of the American Public Works Assn. Ten typical war industry cities studied showed that 1943 appropriations for street maintenance and repair are two to several times as high as the 1940 expenditure:

Dunkirk, N. Y., from $4,930 in 1940 to $18,000 in 1943; Highland Park, Tex., $3,418 to $21,764; Augusta, Ga., $131,896 to $203,867; Kalamazoo, Mich., $25,278 to $60,000; Portland, Me., $93,998 to $129,900; Mobile, Ala., $51,603 to $135,334; Dallas, Tex., $185,643 to $243,100; Milwaukee, Wis., $460,200 to $532,220; San Francisco, Calif., $373,800 to $460,373; Los Angeles, Calif., $1,471,123 to $2,907,588.

Eat Your Prunes

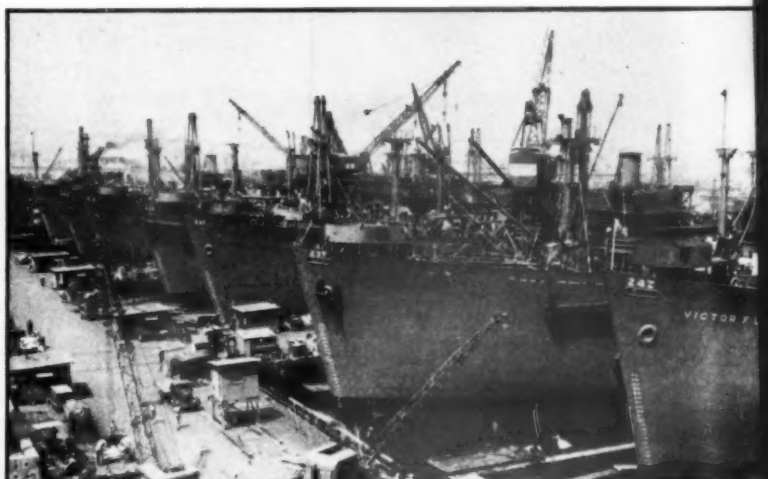
Those and raisins are only fruits you'll get in as volume as last year. Crops down; military take is up.

Civilians whose mouths have wa for the high-priced leavings of thi mer's frost-bitten fruit crop will t better this winter. The Office of Administration has slapped high tion point values on canned, dried frozen fruits, and it is likely to be a time before they come back down.

• **Read 'Em and Weep**—Total fruit production in the 1943–44 will be off about 11% from last The peach crop is 36% smaller 23% below the 1932–41 average. apple crop probably will be down from last year, 24% from the te average. Pear production will be 22% below last year, 15% below ten-year average. The apricot crop less than half of normal. Cherries sadly off.

In part counterbalancing these ficiencies are prospects for a grape about 11% bigger than last year, a or 15% increase in the prune pack a good citrus crop. Total citrus duction this year may even reach year's record. Lemons are a who the 1943–44 crop should be 29% a last year's and the second bigges record.

• **Civilians' Share**—These bright are small consolation to civilians will bear the double load of a crop and increased military takin processed fruits. Civilians will get



SHIPS COME FAST

Launched in the record time of ten days, eleven Liberty ships are being fitted out for delivery at Terminal Island, Calif. Credit for the new launching honor goes to Calif Shipbuilding which boasts it rel one vessel every 36 hours, and unprecedented fleet comes off ways during a leveling off in U shipbuilding (BW—Aug.7'43,p18)

Washington's Crossing . . . 1943 Style

Far cry from a rowboat on the Delaware are today's water-borne armies of invasion, requiring the utmost precision—the greatest coordinated armadas of naval ships, transports, supply ships, landing craft, etc., ever assembled.

nd even before the Marines and Doughboys have nded, Sylphon Control Instruments "have the situaon well in hand" as far as maintaining efficient, safe ngine temperatures is concerned, on board many ternal combustion engine and diesel-powered craft—e standing by, ready to do the same for the aircraft, nks, tank destroyers, combat cars, and trucks that ill flow ashore in endless streams when the beachead has been reached.

hese Sylphon Bellows-powered devices—similar to e Sylphon Temperature Controls so widely used in ectric refrigerators, automobile engines, stationary diesels, industrial processes, heating and air conditioning systems and countless other products—are attracting greater and greater engineering attention to the possibilities of designing superior products around the Sylphon Bellows.

★

Sylphon Products include: *Aircraft Controls*—Liquid Cooled Engine Thermostats, Oil Cooler Thermostats, Oil Cooler Surge Protection Valves, Damper Controls for Cabin and Wing Heating, Fuel Pressure Regulating Valves; Parts for Super-Charger Controls, Carburetor Controls, Fuel Injector Controls; *Marine Controls*—for the Regulation of Fresh Water Heaters, Fuel Oil Heaters, Lubricating Oil Temperatures, Diesel Engines, Desuperheaters, Steam Jet Ejector Condensers; *Automotive Controls*—Engine Temperature Controls for Tanks and Other Military Vehicles, Trucks and Passenger Cars; *Refrigeration Controls*—Thermostat Mechanisms for Domestic and Commercial Refrigerators; *Industrial Controls*—Temperature, Pressure and Vacuum Controls for Industrial Processes; *Air Conditioning Controls*—for Buildings, Ships, Railroad Trains, Aircraft.

THE FULTON SYLPHON CO.

KNOXVILLE, TENNESSEE

Temperature Controls . . . Bellows . . . Bellows Assemblies

TOO MUCH LABOR

At least one spot in the U. S. recently reported a surplus of farm labor. More than 2,000 extra workers poured into the western Colorado peach district last in August to help pick 2,800 carloads of peaches as compared with 2,400 last year, and state and federal labor services had to broadcast appeals to stay away from the area and ask ration boards not to furnish incoming workers supplementary gas allotments.

Several hundred German prisoners of war originally assigned to the job were little used. 182 Japanese from relocation camps got little work, and 200 Mexicans brought in a group had practically nothing to do. The rush of migrant Americans, of people from nearby towns, and of Colorado state employees, many of whom vacationed in the orchards, proved more than sufficient help.

The surplus was dissipated to other areas as quickly as possible.

about two-thirds as much canned deciduous fruit this year as last, substantially less frozen fruit, about the same amount of dried fruit—but less variety because Army, Navy, and Lend-Lease will take all the dried apples, peaches, pears, and apricots, leave civilians only prunes and raisins.

The story of attempts of the War Food Administration and OPA to cope with the blighted fruit and berry crops so as to insure supplies for processing is the old one of too little too late.

• **WFA Pays the Price**—The government is purchasing the entire dried fruit crop. (Some prunes and raisins will later be turned back to civilians.) To make certain that Uncle Sam gets enough, WFA slapped steep support prices on growers (over OPA's frantic protests) on prunes, raisins, and all dried fruits except apples. On prunes and raisins, civilians will get the benefit of the subsidy.

On the canned crop, WFA and OPA have processors in a vise. Prices canners can pay growers are determined by OPA ceilings on canned fruit, and where OPA's line here has been cracked right and left, it hasn't broken to the point where canners can bid against the fresh markets in the face of the sky-high prices that have prevailed on this year's scanty crop. Last year California growers got $63 a ton from canners for apricots, $70 a ton in the fresh market. This year canners' prices went up to $95 a ton, but the market price went to $125.

• **Opposing Plans**—OPA's solution was to jump in with wholesale and re-

ce ceilings on fresh fruit. Growers
eled that OPA's projected prices
uld drive them to the wall on a
rt crop; WFA sided with the grow-
countered with its own program of
uring supplies to processors by limit-
shipments to fresh markets.
WFA's plan was followed on West
ast peaches and raisin-variety grapes.
berries, OPA stepped in with price
lings after processors watched the
wberry crop go by (in the face of a
ernment program to increase output
ams, jellies, and spreads by 200,000,-
0 lb. this year). OPA is now moving
put grapes under ceilings as rapidly
possible, is trying to get together
h WFA on programs for pears and
ples.

Ceilings Die A-Borning—In almost
ry case, price ceilings—when they
e come at all—have come too late.
us, OPA and WFA finally agreed on
lings for peaches, but not before
% of the crop was harvested, so the
lings were never put on. Because of
e short apple crop and the heavy
litary needs for processed apple prod-
ts, a program combining OPA ceil-
s, WFA support prices, and re-
icted shipments has been in the
rks. It now seems very doubtful that
y large part of it will survive.

But the biggest problem for growers
d processors alike is not these govern-
ent mixups but labor, and where to
t it. It now looks as though, with the
lp of city folk and townspeople, sol-
ers, hands imported from Mexico and
e West Indies, interned Japanese, and
isoners of war, the fruit crop is some-
w going to be harvested and proc-
sed, however dire the shortage of help
ay be.

It's Being Done Every Day—In Polk
ounty, Ark., stores closed while towns-
eople, boy scouts, and high school
udents helped harvest 1,750 acres of
ackberries. In Niagara County, N. Y.,
0 Kiwanians, including a judge, a Con-
egational minister, a banker, an under-
ker, and sundry storekeepers picked
lf a ton of cherries in four hours. In
e Illinois town, a county agent for
e Dept. of Agriculture's extension
rvice and a representative of the U. S.
mployment Service saved the straw-
rry crop by cruising through the Ne-
o quarters with a sound truck, fol-
wed by a truck to pick up volunteer
rvest hands.

It looks as though the only fruits
hich civilians will get in substantially
rger quantities are the imported ones
bananas and pineapples. At present
oint values, stocks and consumption of
anned pineapple are in perfect equi-
brium; even the slightest increase in
ipments will bring a cut in the point
alue. Banana imports from Jan. 1 to
May 1 of this year were 39,319 long
ons; from May 1 to Aug. 1, there were
5,021 long tons.

Vast Oil Reserv

West has billions of ba locked in shale, and this ca extracted if known pools p out; price will be higher.

Every time the experts trot out figures and solemnly predict that United States' petroleum reserves last only so many years, the West s rooting for oil from shale. It happe around the end of the last war (1 up around $3.50 a barrel lent impe the plan actually reached the pilot p stage in the mid-twenties; and agita is more active now than ever before

Estimates that the states of Colo and Utah alone have shale beds would yield as much as 75 billion b rels of oil—more than twice as muc this country has produced and used all its petroleum history—have a r appeal in these days of shortage.

• **Fewer Discoveries**—Even with gaso rationing, this country is forced to t more than 4,000,000 bbl. out of ground every day. Moreover, the rat which new discoveries have been add to proved reserves has declined sha in the last half dozen years (BW Apr.17'43,p59).

Exhaustion of known pools ad tedly is still a long way off, and oil tracted from shale isn't in any positi to offer price competition. Yet t West is prepared to believe that he ings on Senate Bill 1243, providing plants to extract oil from shale (BW Jul.31'43,p50), are more than the m panderings of politicians to their co stituencies.

• **Cost Problems**—So far as price go A. J. Kraemer, senior refining engine of the Bureau of Mines, has estimat that shale oil could be produced at total cost of $2 a barrel, including allo ance for amortization of investmen (Midcontinent crude petroleum brin only a little over $1 at the present m

OIL FROM STONE

Shales from which oil can be extracted abound in many states—and the quantities add up to prodigious figures if estimates are on the target. Major potential sources are:

	Barrels recoverable
Colorado	47,000,000,000
Utah	25,700,000,000
Kentucky	9,880,000,000
Indiana	6,912,000,000
Nevada	3,600,000,000
Wyoming	1,800,000,000
Pennsylvania	8,280,000
West Virginia	8,280,000

popular ceiling.) But there's another competitive problem; the $2-a-barrel figure doesn't allow for getting the extracted oil from such remote sources as western Colorado and Utah to the populous markets.

The vast beds of oil shale in these states are located on the sides and bottom of what once was vast Lake Uintah. Had they been subjected to heat and pressure at great depth, they would have become underground petroleum pools. As it is, chemists long have known that they contained the raw material for petroleum. Although not the exact same thing as the crude oil from pools—one authority calls it kerogen—it fills the bill after extensive refining.

• **Process Tried Out**—Most important step toward extraction of oil from shale was undertaken by the Bureau of Mines in 1926. An engineer was brought over from Scotland, where oil was being produced from shale commercially, to aid in a distilling plant at Rulison, Colo. About 6,000 tons of shale were mined and retorted in a destructive distillation process between 1926 and 1929, yielding some 3,600 bbl. of shale oil.

Those, however, were the days of big new discoveries, and the price of petroleum declined until, in the depression, it got down to around 50¢ a barrel. With proved reserves soaring and prices declining, the Bureau of Mines experiment was closed just as private ventures had been given up in the early 'twenties. Not until now have western hopes revived.

Space is Scarce

Cold storage warehouses are better than 80% filled and the peak season still lies ahead; some foods pushed out.

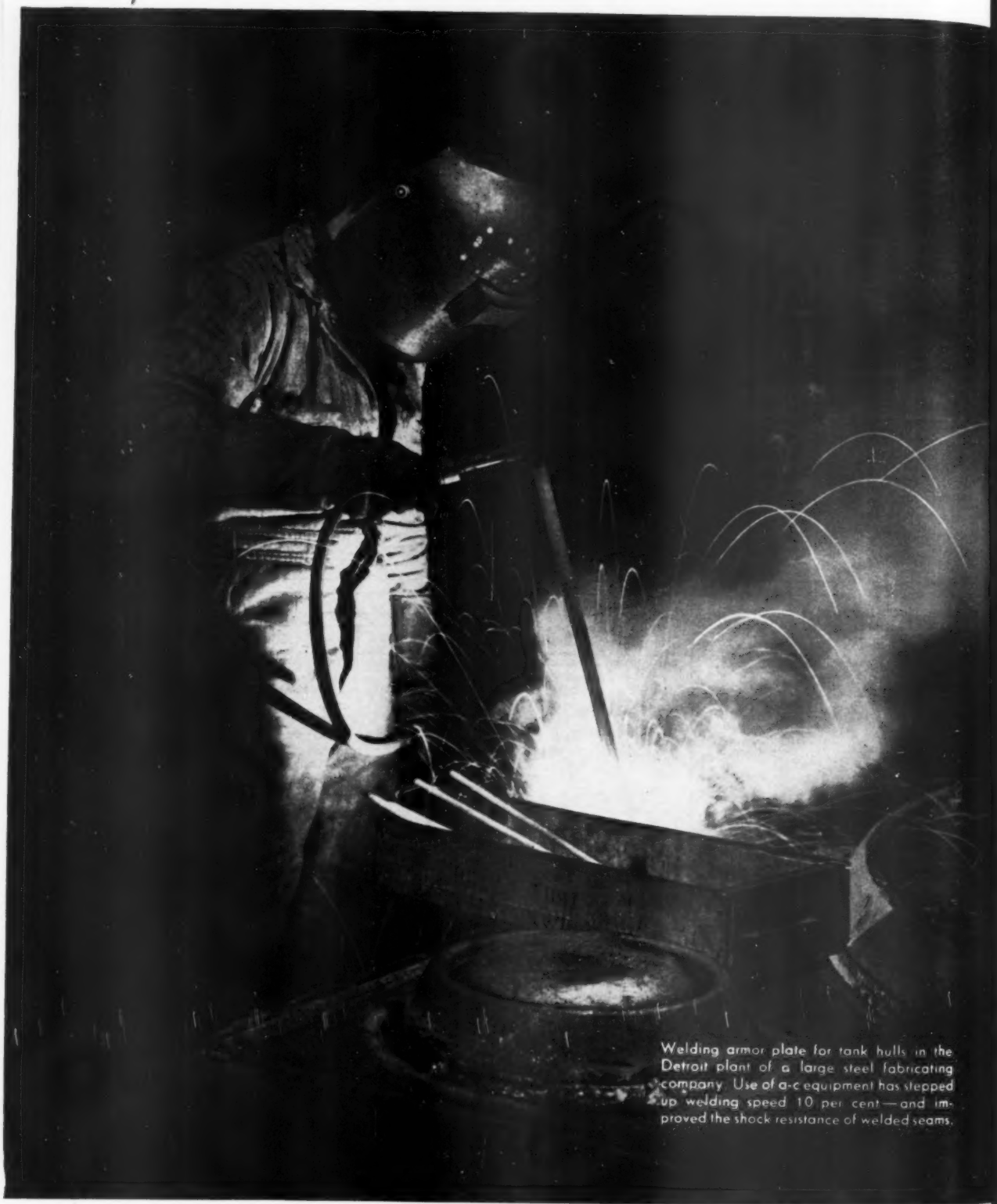
Managers of cold storage warehouses who were scurrying around for customers a few years ago are getting as stuffy as room clerks. They require that customers explain fully why they need food storage space, what the food is to be used for, how long it will be there, and why it shouldn't go somewhere else.

Of the 870,000,000 cu.ft. of combined freezer space and cooler space in the country, 85% and 80% respectively are piled high with food, and the peak season is yet to come. In normal times, 60% was big business.

• **Eggs Are Worst**—Biggest space users are the meat packers, the military, and the War Food Administration, and if they weren't cooperating and getting the cooperation of the industry, there'd be some terrific food spoilages this fall.

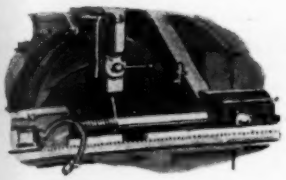
One of the toughest situations so far has been in eggs. Driers of shell and frozen eggs have stored 18,023,000 cases (compared with 12,000,000 at

To get *MORE* from yo



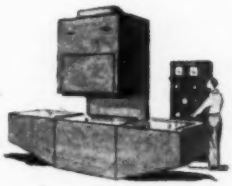
Welding armor plate for tank hulls in the Detroit plant of a large steel fabricating company. Use of a-c equipment has stepped up welding speed 10 per cent—and improved the shock resistance of welded seams.

m your *Available Man-hours*

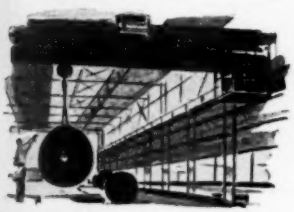


COOLING. For close-tolerance cutting of screw threads, a manufacturer had turned to grinding. Production also proved faster—but the grinding wheels required periodic stops to cool off. Now, G-E refrigeration cools the cutting emulsion to permit continuous operation, has substantially boosted the per-man-hour output.

WELDING. On a variety of jobs, welding speeds have been increased 15 to 30 per cent—by changing from d-c to General Electric *a-c* welders. In horizontal welding, for example, one large shop gets 36 per cent more footage per man-hour, and saves power, electrodes, and maintenance.



INSPECTING. At another plant X-ray examination of important aluminum castings was essential. But how to handle the tremendous volume with the limited man power available? The solution was G-E semi-automatic X-ray machines. At this plant today, mass inspection is geared right in with mass-production schedules.



HANDLING. One plant has markedly increased the output of assembly crews by installation of cranes equipped with a new G-E hoist drive. The drive, operating on a-c, permits faster maneuvering of light loads, assures greater safety and better control in spotting heavy loads.

ROLLING. Output from a huge cold-strip steel mill has been boosted 150 tons per shift—40 per cent above the highest previous level. Crews are no larger than before. Back of this startling production increase is G.E.'s versatile new tool—the amplidyne.

HEATING. In an important subcontractor's plant, torch-brazing of small parts took about three minutes per unit. Skilled operators were a *must*. Now, with G-E electronic heaters, girls do the job in 20 seconds, or less—and output per shift has jumped enormously.

Refrigeration, X rays, electronic heating, new welding methods, amplidynes—these are but a few of the production aids offered by G.E. to help you make war-scarce man-hours go further—count for more. G-E engineers experienced in your specific field will help you apply them. You can get this assistance quickly through your local G-E office. ***General Electric, Schenectady, N. Y.***

GENERAL ELECTRIC

Hear the General Electric radio programs: "The World Today" news, every weekday 6:45 p.m. EWT, CBS—The "Hour of Charm" Sunday 10 p.m. EWT, NBC

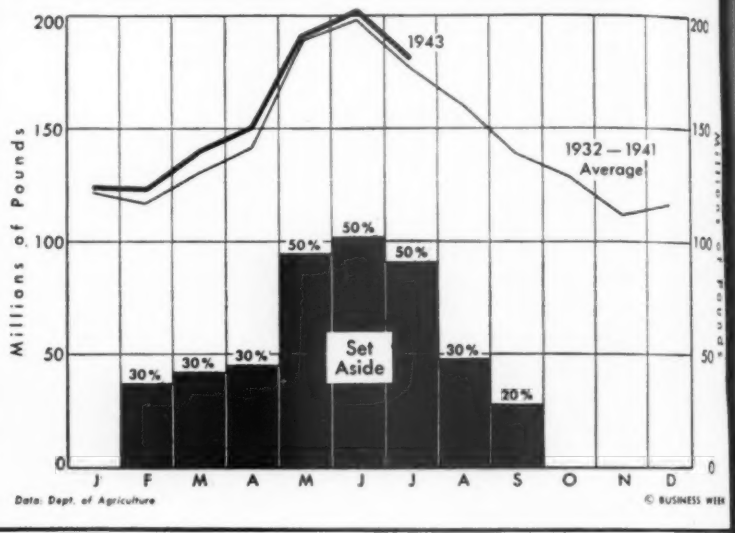
BUY WAR BONDS

Where the Butter Goes

Consumers, butterless in many parts of the country, thought they were getting good news when the War Food Administration told producers they need set aside for the government only 20% instead of 30% of their September output, none in October. But there still isn't anything to cheer about.

WFA had ordered enough set aside in the summer season of flush production to build a big stockpile (for the armed services, lend-lease, etc.). Now it can afford to let consumers take all in the last four months of the year. The catch, however, is that production will be ... down in those months, following ... customary seasonal pattern.

Production so far in 1943 has ... ahead of the average for earlier ye... but it may not hold up later if dai... men are unable to get high-prote... feeds for their herds. Moreover, co... sumers usually draw heavily on st... age stocks of butter in the win... months of low production, but th... won't be able to this year becau... supplies in full-to-bursting coole... (page 29) aren't for the public... unless WFA finds it has more than ... needs and releases some.



this time in an average year). Hope now is that government incentive payments (page 34) will help to move them out.

• **Pushed Out**—Beginning Aug. 3, the War Food Administration pushed a whole list of semiperishable items out of the cooler warehouses. Included were evaporated and canned condensed milk, dried skim milk, dried whole milk in gas-filled containers, sterile canned meats, canned processed cheese, all types of flour and dry cereals, canned fruits and vegetables (except citrus concentrates), and beer, wines, and liquors.

Draft beer, for instance, which needs cold storage because it is unpasteurized, hasn't been moved because WFA understands that the space it occupies wouldn't be suitable for butter, eggs, cheese, and other foods that easily absorb odors. Wool and canned goods, however, were sent to ordinary warehouses; dry beans will be fumigated and stored elsewhere. Furs and hides were not disturbed; they occupy only 5% of total space.

• **Postwar Slump Seen**—Little new cold storage space has been built since 1941, partly because of critical materials, but mostly because the industry is already overbuilt for normal times and expects to slump into postwar doldrums as so... as devastated overseas countries h... food harvests again. Next Febru... three new warehouses totaling 2,100,0... cu.ft. will go into operation in S... Francisco, Seattle, and Auburn, Wa... The Pacific Coast is jammed with le... lease food shipments, and weste... ports are booming with war cargoes.

There has been some conversion ... freezer space from cooler space, a... some regular warehouses have be... made into coolers. A freezer is 29F ... colder; a cooler is 30F to 50F.

• **Rationing Absolved**—OPA and ind... try spokesmen deny that rationing h... choked the cold storage warehous... Less than 3,000,000 lb. of frozen s... beans were in storage Aug. 1, for i... stance, compared to 350,000,000 lb. ... eggs. OPA insists that it changes poi... values on foods regularly to keep the... from piling up. The Army's turk... buying campaign (BW—Sep.4'43,p... and frozen meats, however, have tig... ened temporarily the warehouse pro... lem in port cities. Stocks of lard (BW... Aug.21'43,p22) and butter are oth... problems.

One big bottleneck in cold storage ... at the door of the warehouses, caus...

"THE SLUMP IS TEMPORARY"... FOR WHOM?

TO US AT HOME, a slow down may be "temporary"... but to some soldier at the front it may be a very different story.

When production lags nowadays, the chances are that some fighter is denied adequate equipment with which to fight – denied a fighting chance. It may mean that the bullets he needs today, become "too late" promises for tomorrow. It may mean that he falls before a better-armed foe. After that, everything we can deliver on all the tomorrows in the calendar, will not help him. For death itself is not temporary; it is a grim and permanent thing.

That is why we can never make up the production time we lose; why it is vital for us to foresee and forestall all preventable industrial slow downs.

There is one type of slow down we can prevent: the interruption to production through valve failure.

The way to prevent it is to avoid trouble before it starts. Keep valves operating continuously by inspecting them regularly. Renew worn parts before valves destroy themselves. When valves must be replaced, have them selected and installed by experienced men. And above all, train new workers to operate and maintain valves properly.

Jenkins Engineers are ready to assist any management in developing a program of valve conservation.

Reprints of this advertisement are available for display in your plant.

Jenkins Bros., 80 White Street, New York 13, N. Y.; Bridgeport, Conn.; Atlanta, Ga.; Boston, Mass.; Philadelphia, Pa.; Chicago, Ill. Jenkins Bros., Ltd., Montreal; London, Eng.

JENKINS VALVES

SINCE 1864

For every industrial, engineering, marine and power plant service . . . in Bronze, Iron, Cast Steel and Corrosion-Resisting Alloys . . . 125 to 600 lbs. pressure.

by labor shortages. Fewer men and lower wages in relation to war factories create the problem, and unskilled help that doesn't know how to pile food efficiently compounds it.

• **Still Piling Up**—From now until October, the stocks of foods piling up in cold storage will increase; by March they will be at low ebb. The small apple crop this fall pleases warehousemen. WFA is leasing several apple warehouses for storage of other foods. WFA also has leased such commercially unprofitable warehouses as the Bronx (N. Y.) Terminal.

The agency believes that its most effective methods have been in obtaining cooperation whereby agents of the biggest users get together and work out plans for fair distribution of space in whatever city an emergency happens to arise.

Egg Profit Widen

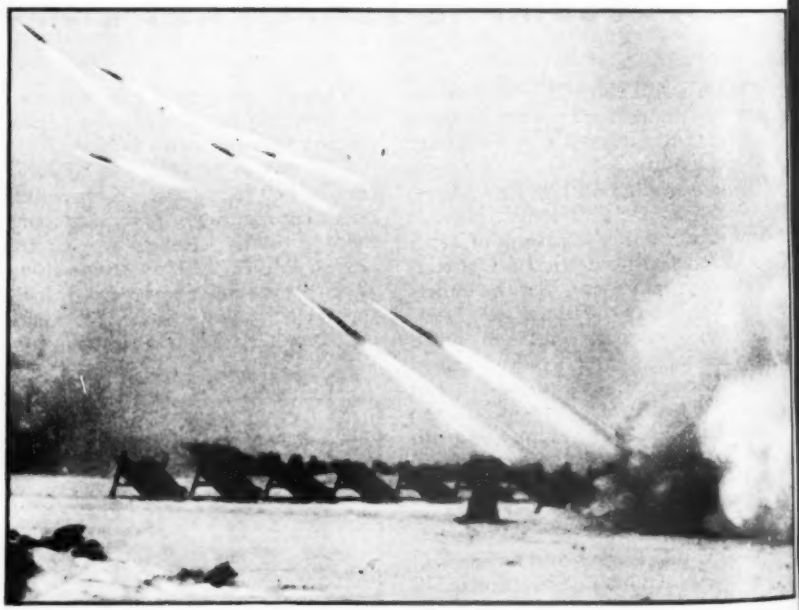
Dehydrators' margin ri under order easing restricti on forward drying to relea cold storage space to Army.

Prompted by the Army's clamor for more cold storage space, the W Food Administration will entertain quests from egg dehydrators for privilege of forward drying. That is, der certain conditions it will now acc eggs dried 120 days before delivery stead of 40 days. Since the ceiling 3¢ a pound a month, this gives operat a wider profit margin.

• **Ceiling Too Low**—While this s probably will speed the out-of-stor

SOVIET SECRET

The Soviet Union's secret Katusha gun is revealed at last as a rocket thrower fired by remote control. Because of lack of recoil, rocket tubes are made from lightweight metals, can be moved readily to lay down a barrage (below), or mounted on trucks (above left). The rocket principle also constitutes the terrific fire-power of Rus sia's Stormovik fighter (above right the rockets, carried under the wings are aimed by diving.



vement of shell eggs earmarked for ing, it would have been much more ective had it been taken two months when many a manufacturer's plant d idle because the ceiling price was low for profitable operation.

The July ceiling on dehydrated eggs $1.18 a pound. Ceiling price of ell eggs was $11.10 a case (30 doz.) hich produced ten pounds of dried s at a raw material cost of $1.11 a nd. But dryers complain they ldn't get eggs for 37¢ and that the est black market price of 39¢ didn't mit them to break even, much less ke a profit. The only dryers who ntinued operations were those like the meat packers whose loss was cush-ed by profit on other products.

Record High—Partly as a result of is, storage eggs reached a record high: 70,000 cases of shell eggs were held U. S. warehouses on Aug. 1, com-red with 7,642,000 on the same day t year, while frozen eggs in storage taled 350,734,000 lb. compared with 0,529,000 lb. in storage the same day t year.

Under forward drying agreements, erators can obtain the December ice of $1.33 a pound (instead of the gust price of $1.21) for eggs dried w and held in storage until delivery, though they must accept a price reduc-on of 1½¢ a pound a month—or $1.28½ r December delivery.

Conditional Privilege — Obviously, FA's reluctant agreement to forward ying isn't a blanket privilege for the ntire industry. Presumably permission ay be denied any operator if WFA s reason to believe his product won't ithstand the 120-day storage period ithout deterioration.

Some in the trade would like to see FA release some of its dehydrated gs for civilian products like noodles, ce cream, and commercial pastry, which ould relieve present demand for shell gs. They point out that government oldings are piling up in warehouses, nd there are enough eggs available for ying in time to meet WFA's require-ents, especially since military and nd-lease recipients have been none oo well pleased with dried eggs for able use. It's a rare cook who can cramble them successfully.

Seeking Postwar Market?—What they ay also have had in mind is assuring a ostwar market for an industry that as expanded from 5,000,000-lb. annual roduction to about 350,000,000-lb. nnual production within the past 18 months. It now includes about 110 plants compared with less than a dozen two years ago. According to the Na-tional Egg Products Assn., industry's brightest postwar prospect is that its product will be acceptable to popula-tions of occupied countries who will have to be fed by the Allies after the fighting is over.

Prisoners at Wor

Now that restrictions a lifted, state prisons are doing $10,000,000 business in wa goods; no absenteeism.

Citations for excellence of productio —not Army-Navy E pennants, but WP kudos of similar significance—we awarded to 56 state prisons this wee for outstanding output of war material textiles, and canned foods.

• **Seven Days a Week**—Absenteeism no problem in prison industries. Som 130,000 prisoners in 100 state prison working six and sometimes seven days week, will provide the manpower th year for the manufacture of textile wood products, canned foods, som twine, and other war needs to a value o $10,000,000. Exclusive of estimate from 21 states that prison farms wi yield $3,335,000 in crops, these institu tions are fulfilling contracts aggregatin $7,100,862.

With most of the prisoners, it is a matter of patriotism. Their pay of 5 to 50¢ a day isn't always as big an in centive as the feeling that even though they can't fight they can work. Abou one-third of them are semiskilled, and with the increasing emphasis on tex tiles, a growing proportion of them are women.

• **Rehabilitation Goal**—A Presidential order lifting restrictions on prison-made goods took some of the trade union curse off prison labor. But while nobody scoffs at the volume or quality of prison products, the chief purpose of the pro gram is rehabilitation.

Inmates of state institutions in Ala bama are making chambray for Navy shirts; in New York, osnaburg camou flage cloth, demolition boxes, and Coast Guard blankets; in Michigan, pontoon boats, bush shirts, fatigue suits, and mattress covers; in Maryland, ammuni tion crates and furniture for the Coast Guard and the Maritime Commission; in California, submarine nets and sal vage wire; in Illinois, boiler-room suits for the British Admiralty; and in Minne sota, wooden lockers, rope, and iron castings.

• **Food Stressed**—Many of the prisons have laundries and shoe repair shops which are servicing military camps. Maryland repairs 2,000 pairs of shoes a week. Food is being stressed this year, and canned goods are high on the list. Prisons have no difficulty getting can ning equipment and cans.

Prison populations have decreased about 15% since the war began, chiefly because war affords an outlet to rebel lious citizens, and they wind up in an ac tive fighting role instead of in jail. Also, Army induction hastens some releases.

lthough charcoal iron is needed, cost- ice squeezes are driving producers to e wall. Symbolic of the dilemma, elta Chemical & Iron Co.'s only fur- ce has stood cold since last Jan. 8.

anishing Metal

Supplies of charcoal iron rying up under price squeeze nd lack of timber. OPA pushes p the ceiling.

One of the mysteries that have baffled etallurgists since John Alden courted r Miles Standish is why charcoal iron superior in many respects to coke iron f identical chemical analysis. Another hat's troubling consumers of the char- al product is how they're going to ontinue meeting their obligations to he war program in the face of a critical hortage.

Used in Rolls—Charcoal iron is an ssential ingredient of certain types of olling mill rolls for steel, aluminum, rass, and rubber; in such uses, it per- nits a smooth finish that is not possible ith coke iron. It is used in certain achine tools, castings, and, in limited mount, in some malleable irons. Yet roduction of the stuff last year, accord- ng to the American Iron & Steel In- stitute, was only 104,701 tons, and his year it may be only half that much.

The reason for the slump isn't hard to isolate. Though the limbs of its fam- ly tree may reach all the way back to he Mayflower, the charcoal iron indus- ry is suffering a modern ailment. It is squeezed between a ceiling price on its product and rising costs of raw mate- rials, principally hardwood timber used for charcoal. Consequently, of the four charcoal iron blast furnaces remaining in the United States, only three are pro- ducing pigs now—probably only two

will remain in operation this winter.

• **Timber Gave Out First**—In general, charcoal iron furnaces were established at points where supplies of both iron ore and charcoal timber were available. This was true of the blast furnace built in Connecticut in 1657 by John Winthrop as it was of the multitude of furnaces which sprang up in Michigan in 1844 with the discovery of iron ore on the upper peninsula. More often than not, timber gave out before ore, and one furnace after another folded for the lack of it.

This is one reason the Antrim Iron Co. plans to suspend operations at its furnace in Mancelona, Mich., this fall, after some 60 or 70 years of fairly steady production. The Mancelona furnace was going strong in 1890, the year charcoal iron production in the United States hit a peak of 628,145 tons.

• **More Profit in Charcoal**—The Delta Chemical & Iron Co. blew out its iron furnace at Wells, Mich., last Jan. 8 and has limited itself to production of charcoal, for which demand is sharp (BW—May8'43,p35), without indicating when, or whether, it would resume the smelting of iron ores. A feeling prevailed that Delta would hustle back to the iron business if OPA raised the ceiling, but Delta decided to stick to its charcoal when OPA last week authorized an increase in the ceiling price on charcoal from $28 to $34 a ton, retroactive to July 1.

A furnace operated by the Tennessee Products Corp. at Rockwood, Tenn., with a capacity of 80 tons a day was closed recently for repairs but has been refired. Other than this and the Antrim furnace at Mancelona, only the Newberry Chemical & Iron Co. at Newb... Mich., is in operation. Newberry, w... owns a considerable acreage of tim... has a daily capacity of 95 tons of ...

• **Commands Premium Price**—Al... from the day the first coke iron ... smelted in the United States in 1... charcoal iron has commanded a ... mium price. It has sold for as little ... $26.75 (in 1843) and as much as $5... (in 1815). In 1931, it drew a premi... of $8.71 over coke iron.

New Road North

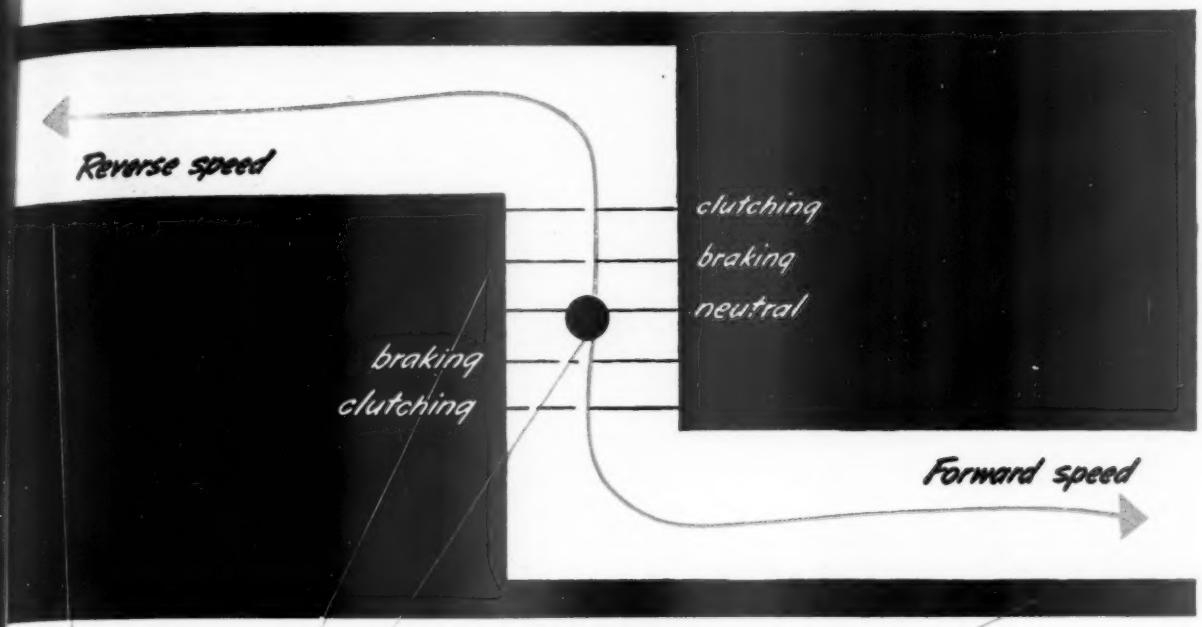
Cities on the Pacific Coas... left out by the Alaska Highwa... want road built along floor ... Rocky Mountain Trench.

Another road to Alaska is being voc... erously urged by business interests ... British Columbia, Washington, a... Oregon. Their immediate argument ... wartime necessity; their ultimate go... is to cut themselves in on the expecte... postwar development of vast territori... in western Canada and Alaska.

When the Alaska Highway was bu... starting at Dawson Creek—the end ... the rail line running from Edmonton ... Vancouver, Seattle, Tacoma, Portlan... and other cities in the area were b... passed. But they didn't take it lyi... down.

• **Original Plan Changed**—There's t... railroad running north from Vancouv... to Quesnel. An existing road lin... Quesnel to Prince George. The We... Coast cities at first proposed a link ...

Col. Richard Park of the Army Engineers traces the Rocky Mountain Trench—a natural grade for the proposed Yukon-International Turnpike to link the Pacific Northwest with the Alaska Highway. As a surveyor of the 1,000-mile cut, Park advocates the route for the projected turnpike.



Check your control problems

along these lines

In almost every plant . . . and in many mechanical products . . . there's a place where a simple, dependable, and economical remote control system would help to boost production, or add salability. These are the places that W·A·B Remote Control Systems are designed to fill.

These controls place complete command of any series or sequence of operations directly under the thumb of the operator. Just as an example, consider this graphic indication of an engine control cycle used on shipboard.

All engine operations involved in maneuvering the ship—speed control, braking, clutching or reversing—are governed by a simple movement of the control handle.

It is impossible for the operator to alter the order of these operations and so damage the equipment . . . yet the timing is completely under his control.

One of our representatives will be glad to discuss your control problems with you, and recommend a solution. In many instances, no special equipment is required; standard, immediately available, "off the shelf" W·A·B devices can do the job. Write, wire or phone.

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PNEUMATIC
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PNEUMATIC-HYDRAULIC

remote control systems

cut from Prince George to Dawson Creek at an estimated cost of $18,000,000 (BW–Jul.17'43,p50). Now, however, they're boosting one of the alternative routes eyed by the Army before it decided to run the Alaska Highway to the east so as to link the string of northern airfields.

Suggested name is the Yukon-International Turnpike, and the road would take advantage of the geological phenomenon known as the Rocky Mountain Trench. This is a 1,000-mile g
logical fault that runs straight as a bee
er's course for 1,000 miles from w
central Montana toward the Yukon.

• **Relatively Flat Course**—The turnp
would cut from Prince George into t
Rocky Mountain Trench (which is f
to ten miles wide), thence northwa
until it joined the Alaska Highwa
Cost is put at $50,000,000. Highe
point would be Sifton Pass, 3,275
above sea level, and there is no point

*When the Pan-American Highway is continued northward after the war, the cities of the Pacific Northwest want to be on it. The Alaska Highway at present is fed by railways running from the East. But Vancouver, Seattle, Tacoma, and Portland have a ra
link pointing north, and they want
one of two projected highways (broken
lines) as an Alaska feeder.*

Alibis • THE BACK-FIRE OF SECOND HAND ORDERS

Second hand orders, confused, slow and often garbled, have no place in the routine of modern business. Too often they explode in alibis and irresponsibility.

A sure safeguard to the hazards of the oft repeated "he said" is use of Teletalk Amplified Intercommunication . . . the direct, dignified, 100% accurate way to communicate with your associates. With Teletalk, your own voice, easily recognizable, delivers the often vital orders which speed war materials through your plant. Right at your elbow . . . in three seconds . . . you merely flip a key and call your secretary, contact your production manager, check the order department, complete any of the hundred and one important contacts the day's business demands.

This time and energy saving method is not only direct and accurate. It saves the valuable time of your busy executives. That's why a Teletalk Amplified Intercommunication System will pay for itself in a few months.

Teletalk units are beautifully styled, finished like a fine piece of furniture. You can have them in capacities of from 5 to 24 stations to fit the exact requirements of your business.

War orders probably give you the proper priority. Teletalk distributors located in major cities are ready to appraise your requirements, make practical recommendations and see that Teletalk is installed quickly . . . no inconvenience to your office routine. If there is no distributor listed in your telephone directory, as shown below, write us and we will see that you are properly contacted.

WEBSTER ELECTRIC

Electronic intercommunication, paging and sound distribution systems for offices, stores, factories, buildings, institutions, homes and farms.

Teletalk

"WHERE TO BUY IT"

GRAYBAR ELECTRIC CO., INC.
778 N. Milwaukee MARquette 1945
MILWAUKEE

Illustrated at right, Model 224M Teletalk Unit with facilities for connecting 24 stations or less.

WEBSTER ELECTRIC COMPANY, Racine, Wisconsin, U. S. A., Established 1909. Export Dept.: 13 E. 40th St., New York (16) N. Y. Cable Address: "ARLAB" New York City.

BUY WAR BONDS

Licensed under U. S. Patents of Western Electric Company, Incorporated, and American Telephone and Telegraph Company.

WEBSTER ELECTRIC

"Where Quality is a Responsibility and Fair Dealing an Obligation".

the trench as much as 1,000 ft. b
that altitude.

Incidentally, the only trench ri
in size the Rocky Mountain trou
the one cutting across the Jordan
ley and the Dead Sea in Palestine
running thence along the Nile t
heart of Africa.

The Pacific Northwest Trade As
seeking to convince Washington
Ottawa officials and military lea
that the highway should be built a
auxiliary for the Alaska military
and as the best permanent pos
route for the northern leg of the P
American highway.

Benjamin H. Kizer, Spokane at
ney and chairman of the Pacific No
west Planning Commission, decl
his belief that "in the interests of l
term security" a railroad or high
"should be built prior to the time w
economic development within the
gion would justify it."

Gas Eyes Future

**Questionnaire aims to g
the dope on what utilities wa
and think they can sell; plans
manufacturers guarded.**

Early next month, the American G
Assn. will ask the 5,000 utility operat
and engineers of its membership to
out a questionnaire which may run
pages or longer and will seek answers
two questions vital to the postwar bu
ness of gas appliance manufacturers:
What improvements are desirable a
necessary on existing designs of app
ances? (2) What brand new, and ev
revolutionary, appliances are foreseeab
and feasible?

• **Work for Committees**—Meanwhil
the chairman of A.G.A.'s Postwar Pla
ning Committee, A. M. Beebee, who
general superintendent of Rochest
(N. Y.) Gas & Electric Corp., will a
for all action possible from his four su
committees on (1) postwar purchasi
power and potential markets, (2) fa
tors affecting the realization of the p
tential markets, (3) engineering and ec
nomic aspects of our own ability t
satisfy the potential market, and (4) e
fect of national planning and trends.

Meanwhile, too, the chairman of th
Postwar Planning Committee of th
Assn. of Gas Appliance & Equipmen
Mfrs., Frank H. Adams, who is vic
president and general manager of Su
face Combustion Corp., Toledo, wi
in a way have to ask his committee an
subcommittee members to mark tim
pending returns from the big A.G.A.
questionnaire. The utilities constitut
the major sales outlet of the A.G.A.E.M.
membership. If the utilities don't
know exactly what they want and wha

...cy can sell, all the appliance manufac...rers can do is cling to existing models.

• **Designers Are Busy**—Actually the ap...iance design situation will not be quite ...at static, because A.G.A.'s testing ...boratories in Cleveland have been do...g continuous research on various fun...amental problems having to do with ...sign of gas burners, automatic light...s, ranges, what-have-you. Since Pearl ...arbor, the laboratories have published ...o comprehensive bulletins: Funda...entals of Design of Atmospheric Gas ...urner Ports and Combustion of Gas ...ith Limited Air Supply.

Much is expected to result from the ...uestionnaire because it will not confine ...self to mere questions calling for more ...r less imaginative answers. Rather, it ...ill list under such a question as "What ...provements are desirable and neces...ry on existing gas range designs?" a ...roup of suggested answers like "Top ...urners? Ovens? Broilers? Lighters?" ...hich are questions in themselves. To ...hese, each utility operator and engineer ...ill be asked to assign the numerical ...rder of the importance of each sug...sted change and to report the number ...f ranges sold by his company in the last ...ear before they were restricted by gov...rnment order.

• **Practical Evaluation**—When A.G.A. collates the answers covering each class of appliance—range, water heater, laundry mangle, and so on—due weight will be given each company's answers for the quantity of a particular appliance sold. Thus the final comprehensive report on the results of the questionnaire promises to reflect the opinions of the men who have actually sold the big volume of any one appliance rather than the vaporings of some little utility man who may have large ideas for improved design but no background of actual sales and service experience.

Design problems in the gas appliance field are considerably more complicated than those inherent in competitive electrical appliances. Electric current which enters homes is pretty well standardized at 110-volt, 60-cycle, a.c., except in localities like those served with Niagara's low-cycle a.c. power and by New York City's few remaining d.c. stations. One given type of appliance will do for almost the entire nation.

• **All Kinds of Gas**—Gas, on the other hand, is piped to homes in at least eight major forms—natural, water, coke oven, retort coal, oil, oil refinery, butane-air, mixed—in a variety of heat unit contents ranging from 550 B.t.u. to the cubic foot for manufactured gas and 1,000 B.t.u. for natural gas to 3,000 B.t.u. for butane-air gas (which is normally not piped to homes but sold as "bottled gas"). Practically any gas appliance thus must have a wide range of adjustment.

For another thing, the gas industry is pretty well expanded up to present capacity, having delivered to its cus-

tomers 1,772,994,000,000 cu. ft. of natural gas and 440,737,000,000 cu. ft. of manufactured gas during 1942, for estimated revenues of $584,533,000 and $410,512,000 respectively, gains of 11.2% and 5.7% over comparable 1941 totals. Customers for both classes of gas rose 3.4% from 18,622,000 in 1941 to 19,249,000 in 1942.

• **For Other Uses**—Indications are that all-over 1942 production of natural gas, including that used for field purposes and the production of carbon black, ran in excess of three trillion cubic feet. Some 232 billion out of that total were used as fuel for generating electric power, a figure which gives gas men almost as much satisfaction as the fact that their industry produces ten times as many B.t.u.'s every year as the electric utilities.

That the gas utilities have expanded so considerably leads the appliance manufacturers to wonder whether their best customers will be willing to continue expanding facilities indefinitely. Will there be gas enough for all the proposed new and improved appliances? In particular, is the house-heating load (at special low prices) a sound extension of gas service? Is it a foundation for the security of cooking, refrigeration, and water-heating loads, or is it a liability to be handed to oil, coal, and electricity with the industry's blessing?

• **Air Conditioning Popular**—That many of the utilities are plugging with enthusiasm the Servel idea of a complete gas air-conditioning unit with humidified warmth for winter, dehumidified coolness for summer, and filtered ventilation the year around (BW—Jul.10'43,p84) may be considered a partial affirmative to the load-building query. That only 27 utilities out of all the thousands have had actual experience with the air conditioner leads many appliance manufacturers to be wary. At that, it is estimated that almost a dozen manufacturers are experimenting with gas air-conditioning units of their own design, but incorporating some modification of the motionless heat-absorption mechanism developed by Servel.

Though both the A.G.A. and the A.G.A.E.M. are busy formulating broad postwar industry plans, neither the utilities nor the appliance manufacturers are willing to discuss their individual blueprints. All new products except Servel's are under wraps for the duration.

• **New Heat Efficiency**—It is expected that the success of radiant ceramic gas burners in meeting the industrial competition of electric infrared lamps will lead manufacturers of gas ranges, water heaters, and so on to adopt one or another form of the heat-efficient ceramic burners for their products. It is expected, too, that manufacturers will seek to make controls as simple and automatic as those used on electrical appliances.

NOTE TO HOME OWNERS

This means something to you, too. It foretells the day —not now, but after Victory—when you will have efficient fluorescent lighting in your own home.

The fluorescent fixture of the future

The new Sylvania industrial fluorescent fixture is much more than a design to save critical metal for armament.

Right now it is standardizing fluorescent lighting for precision production and is giving better cool, shadowless and glarefree light to war plants.

In its simplicity and flexibility of design, it is truly the fluorescent fixture of the future.

It takes its place on the list of Sylvania fluorescent "firsts" with the first complete industrial fixture, which did much to speed war production with the most efficient lighting known.

Sylvania engineers, who have contributed so much to the development of fluorescent lighting, streamlined this fixture and eliminated metal entirely from its reflector. Yet its durable composition reflector has an efficiency of 86 per cent, reflecting more light than prewar porcelain enameled metal in conventional contours.

This all-purpose Sylvania fluorescent fixture is designed to meet any industrial requirement in *one* of two standard sizes. It carries Underwriters' Laboratories approval and our own guarantee.

• • • **SYLVANIA ELECTRIC PRODUCTS INC.**

EXECUTIVE OFFICES: 500 FIFTH AVENUE, NEW YORK 18, N. Y.

INCANDESCENT LAMPS, FLUORESCENT LAMPS, FIXTURES AND ACCESSORIES, RADIO TUBES, ELECTRONIC DEVICES

China Faces Political Crises

Need for more munitions and trouble between Kuomintang and communistic forces of northwestern provinces may prove of vital import to the war in the Pacific.

China has more on its hands than a war with Japan. Two political battles are being waged, and while it may seem detached to air political arguments in the midst of a bloody conflict, the war with Japan may be profoundly influenced by the handling of these issues:

(1) The well-publicized Chinese drive for more munitions and machines from the United States, Britain, and Canada.

(2) Reappearance of the old trouble between the Kuomintang government in Chungking and the communistic provinces of the northwest.

• **Fears of Separate Peace**—Difficulties involved in supplying China with arms—even if it is assumed that they can be spared from other fronts—are too well known to warrant further discussion. However, failure to supply at least part of China's needs would raise the specter of a separate peace with Japan.

Even after more than six years of war, the Chinese still have the deep-seated desire to expel the aggressor from the mainland of Asia. There are fears in Allied camps, nevertheless, that Chungking may be unable to carry on.

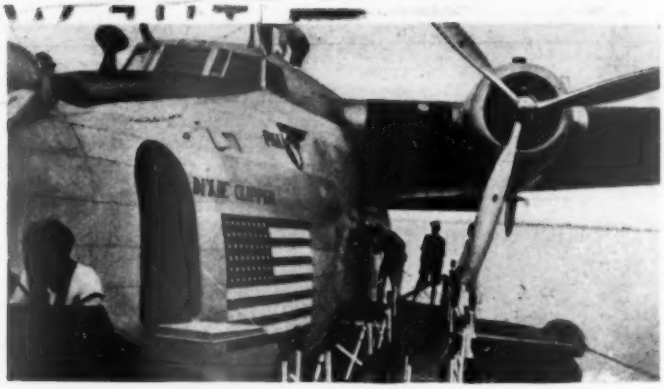
• **Factions Draw Apart**—These fears are heightened by China's internal struggle. Gen. Chiang's immediate difficulties date back to the early conflicts between Dr. Sun Yat-Sen and the Chinese Communists, to the civil wars in the early 'thirties, and even beyond to the social, economic, and political conditions which produced the Kuomintang—the National People's Party. Recently, the gulf between the increasingly totalitarian Kuomintang and the communistic elements has been widening.

The fear is that Chiang's armies may become involved with the Eighth Route and the new Fourth armies. Such an eventuality might permit the Japanese to (1) deepen their penetration into the Chinese mainland, (2) eliminate China from the war altogether, or (3) divert forces now engaged in China against Allied forces in the Southwest Pacific and India.

• **Controls Get Tighter**—The Kuomintang has done nothing more than render lip service to Dr. Sun's reform philosophies. By extending government monopolies over industry and by tightening the party's hold on provincial administrative bodies, the Kuomintang is steadily reducing the few controls which the people exercised on the

LONDON BRIDGE STORY

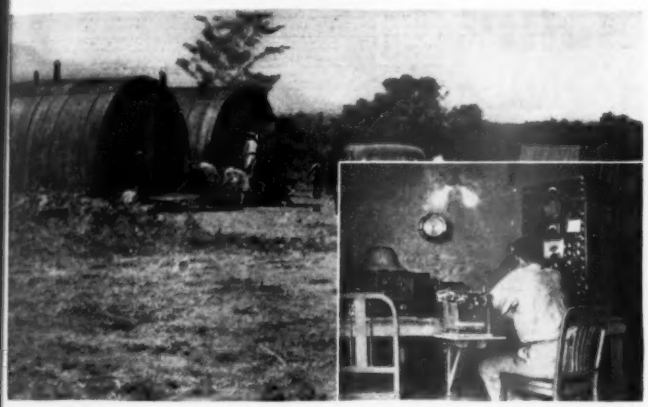
Into the maws of England's hungry steel furnaces are going 3,000 tons of scrap, the remains of London's "temporary" Waterloo Bridge. Erected 17 years ago to absorb part of the traffic from the weakened original Waterloo Bridge, opened in 1817, the temporary steel span escaped the 1940 Axis blitz only to end its usefulness last fall when part of the new six-lane Waterloo Bridge was opened. The first span was dismantled in 1936.



Where Office Machines can't be coddled

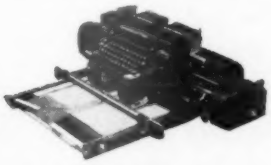
Underwood's the choice...

—From Remote African Base Pan American World Airways reports Hardihood of Underwood Equipment



Underwood Typewriters

Underwood Sundstrand Adding-Figuring Machines



Underwood Elliott Fisher Accounting Machines

1. Secret Airport—*In the African wilds a Pan American World Airways plane floats at its dock. Before the war, Pan American foresight blazed many air trails now vital to the United Nations' war effort.* Among the machines that contribute to Pan American's efficient operation are those which help organize its thousands of essential details—office machines! In Pan American's accounting, traffic, clerical and executive offices, there you'll find the name Underwood Elliott Fisher.

2. No Casualties Permitted—*Unlike the 407 U. S. cities where service facilities on UEF machines are, even in wartime, as near as your telephone, such remote outposts as this airport must rely completely on the unfailing durability of its office machines. Here, Pan American installed Underwood typewriters.* Many of these machines are veterans in service, yet Pan American reports that all are on top of their jobs—that working without vacations, they have required remarkably little special attention.

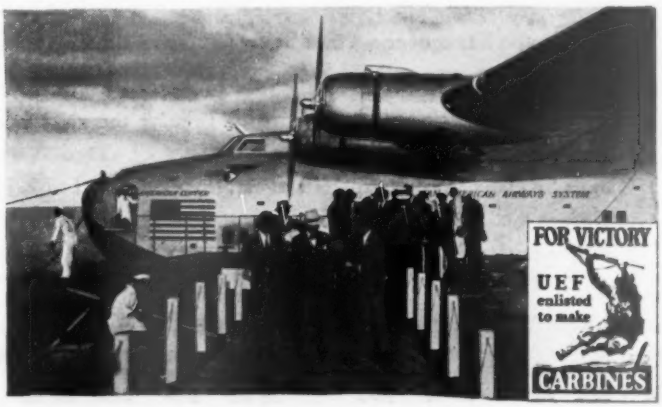
3. Service in War—*Air crossroads of the world today is neutral Lisbon, Portugal. Here top priority passengers are shown leaving a Pan American Clipper after a 4-continent, on schedule, flight.* Also serving *you* in wartime UEF can supply adding and accounting machines under WPB regulations. We have been able to assist many companies with their wartime accounting problems. Ribbons, carbon papers, and complete maintenance service on all products are available from coast to coast.

Underwood Elliott Fisher Company

ONE PARK AVENUE, NEW YORK 16, N. Y.

We are now in war production on—U. S. Carbines, Caliber .30 M-1—Airplane Instruments—Gun Parts —Ammunition Components—Fuses—Primers and Miscellaneous Items.

Enlist Your Dollars... Buy War Bonds... To Shorten the Duration



party's activities. The non-Kuomintang membership on the People's Political Council is declining.

Elections, when they are held, will be under a new system limiting candidates to graduates of Kuomintang training schools, and suffrage will be indirect and limited to the elite.

Efforts to control prices and distribution of scarce goods and foods have been totally ineffective. Living costs in the cities have rocketed between 1,000% and 2,000%. In the country, there is starvation on the one hand and hoarding on the other.

• **Brand of Communism**—Several specialists in political theory have attempted to define the distinction between communism and the administrations introduced in the northwest provinces which operate independently of the Kuomin-

LONDON'S NEW PLAN

With more than a million homes destroyed by bombs, Britain is preparing a ten-year project for construction of 4,000,000 new houses. The London County Council recently unveiled a model of its plan for slum clearance, new houses, and schools for workers' families. The Royal Institute of British Architects and the Town & Country Planning Assn. have proposed separate schemes. Undecided is the proportion of housing to be built by private and public interests, while charges are heard that projects are above income levels of the neediest groups. Additional evidence has been presented that home types are such that construction material interests will be entrenched in postwar housing. At least one proposal made would nationalize housing sites.

What handful of Bostonians could save Bunker Hill today?

IT WAS 1822 and the site of the Battle of Bunker Hill was going under the auctioneer's hammer.

Unless someone stepped in, this hallowed ground would soon be overrun with warehouses or shanties.

At the last minute a Boston editor, General H. A. S. Dearborn, rallied the leaders of the city—enlisted the support of Daniel Webster, Professor Ticknor, Dr. Warren, William Sullivan, George Blake, Thomas Perkins, Theodore Lyman.

Together they formed the Bunker Hill Monument Association—preserved for generations to come the scene of one of the great moments in America's beginning. (And it was the wives of these leading Bostonians who organized the Fair that raised the money to finish the monument.)

★ ★ ★

TO WHOM would General Dearborn turn in Boston today? Who are the Bostonians of 1943 with the greatest influence, the positions of leadership, the sense of a past and a future—the vital people at the top or on the way to the top—the people other people listen to?

For an objective answer, TIME asked the H. B. Humphrey Company, top-flight Boston agency, to name the most important people in Boston *now*.

They named 500—and then asked these top Bostonians what magazines they read regularly, which are their first-choice and their second-choice magazines.

Here are the findings:

Of the 306 who replied, (61%)

1. More than 50% read TIME regularly!

2. TIME is so much their favorite that they give TIME 2½ times as many first-choice votes as any other magazine, no matter how large its circulation!

As Boston's leaders vote, so vote the nation's leaders. For similar surveys in other cities are showing similar results.

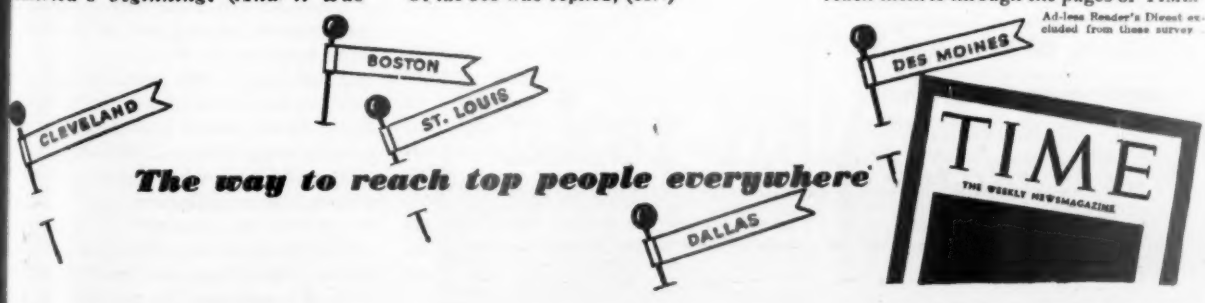
And group after group of national leaders—corporation officers, members of Congress, college presidents, men and women listed in Who's Who (and 31 other groups) vote TIME America's most important magazine.

★ ★ ★

THE IMPACT OF PEOPLE like these—the impact of their actions, ideas, buying preferences, on thousands of others—is beyond measuring.

And by their own say-so, the way to reach them is through the pages of TIME.

Ad-less Reader's Digest excluded from these surveys



The way to reach top people everywhere

tang. Leaders in this area have received training in Russia and teach political theory to soldiers and officials alike, but an adaptation of theory to local conditions and the needs of the peasantry has been made.

Elected councils, headed by elected executives, rule villages, cities, and districts. Taxing bodies have local membership, and a program of land reform has, for the first time, freed the Chinese farmer from the levies which kept him in virtual feudal servitude when the territory was controlled by the Kuomintang or transitory warlords. Even today, the Chungking government rests upon the system of landlord-peasant relationship characteristic of feudal governments.

• **The Military Factor**—In a recent radio dispatch, Guenther Stein, author of "Far East in Ferment" gives a clue to the forces which might be released if China drifted into civil war. Chinese military estimates of the distribution of Japanese forces are as follows:

	*Divisions**
Manchukuo, Korea	39
China	30
South Pacific	18
Burma, Malaya, Indo-China	10
Japan, Formosa	3†
Total active strength	100

* *Averaging under 20,000 men.*
† *Plus 30–40 divisions in training.*

COFFEE PLASTIC LAGS

SAO PAULO, Brazil—Billed as a sensation some time ago, cafelite plastic made from coffee beans is still not in production. The original intention was to erect a pilot plant to handle 50,000 bags of coffee annually. The factory is completed, but engineering difficulties in converting from laboratory to mass production have delayed commercial output. The factory is government-owned, but technical and engineering aid is being rendered under contract by the Cafelite Corp. of New York. Latest word is that production will begin within a month and that the factory's capacity will be greater than anticipated—perhaps running to 100,000 bags of coffee a year.

Brazil's plastics include Bakelite and products made from cellulose acetate powder, phenol plastic powder, polyvinyl acetate resin, and urea-formaldehyde powders.

Bakelite products dominate the field, but articles made from cellulose acetate and other powders are increasing in number. The industry's growth has been retarded in the past, and particularly since the war, because many of the raw materials have to be imported. Despite experimentation in Brazil, no cellulose acetate powder is yet in commercial production, and supplies come mainly from the U. S.

CANADA

More Subsidies

Consumer items are to g government aid, and ceilings w be eased on luxury goods nip wage threat to c. of l. inde

OTTAWA—In face of the threat the Dominion's wage ceilings (BW Sep.4'43,p52), Canada will seek to h its price ceiling structure by loosen prices of luxury goods and extend subsidies widely on consumer items affecting the cost of living.

• **Shattering Effect Seen**—Meats a other food items and some items clothing will be subsidized at the co sumer level. The Ottawa treasury prepared to carry a high cost for kee ing the cost-of-living index below th level to which the National War Lab Board's wage plan would otherwise bri it. The effect on Canada's anti-inflatio policy will be shattering in comparis with anything that has occurred sin price ceilings were established Dec. 1941.

Up to the present, the principal pre sure against Canada's price contr structure has come from inflationar prices below the border. Price Contr Chief Donald Gordon has said at Ot tawa and Washington that unless th United States placed a limit on wage and prices, the Canadian experimen was doomed to failure. By subsidie running into around $100,000,000 a year, the price control administration has managed to keep the cost-of-living index below the point of wage bonu adjustment which would affect produc tion costs.

• **One Point a Quarter**—When price ceilings were imposed, the Ottawa gov ernment clapped on a wage ceiling sup plemented by a cost-of-living bonus t be adjusted to quarterly changes in the official cost-of-living index. The adjust ment differential was one point a quar ter. Last October, the index rose and threw the price ceiling structure off bal ance. To prevent further disturbance, Gordon established a system of retail subsidies for essential goods under which the government paid part of the cost of some food items.

As of Aug. 1, the cost-of-living index was just one-tenth of a point below the figure which would have necessitated a general wage bonus (BW—Aug.28'43, p78), and Gordon was planning to grant certain new subsidies on meats and fuel to prevent an increase in production costs through a rise in the bonus in October. This plan has been upset by NWLB's program for puncturing the

INDEXES COMPARED

The Dominion Bureau of Statistics last week reported on world movements of wholesale price indexes and cost-of-living indexes during the first half of the current year. In the series, Canada does not claim any honors, but it does outrank the U. S. in successful control over wartime cost rises as shown by percentage changes:

Country	Wholesale Prices	Cost of Living
Canada	+ 2.6	— 0.3
United States	+ 2.8	+ 3.7
Mexico	+19.0	+24.0
Argentina	+ 5.0	*
United Kingdom	+ 1.0	— 1.0
New Zealand (4 mo.)	+ 3.0	0.0
India (Calcutta)	+30.0	*

* *Not available.*

Going back to the outbreak of war, the bureau reports that living costs in various countries have risen by the following percentages: Iceland 139%, Mexico 59%, United Kingdom 28%, United States 27%, South Africa 26%, Australia 23%, and Canada 18%.

ceilings on wages below $25 a week and granting compulsory bargaining rights at higher wage levels.

• **To Boost Wage Costs**—National War Labor Board's plan, based on a four months' probe into Canadian labor relations, will boost wage costs in Canada much higher than an increase in the wage bonus adjusted to an advance in the cost-of-living index.

LUMBER CEILINGS TO RISE

Canadian lumber men will have word in a few days of improvement in control of prices of their products. Lumber control offices in Ottawa are planning to raise ceiling prices on some lumber items and to pay subsidies on others.

For three years, the industry has argued with Ottawa that it was on a nonprofit basis on domestic sales which absorb the bulk of its output. It has looked to exports to the United States and Great Britain for prices to compensate for losses on supplies to the domestic market of which 85% went to the government. Recently, Washington's OPA put ceilings on Canadian lumber shipped to the New England states which, according to trade figures, deprived Canadians of compensatory profits. Canadian lumber committees have held that the OPA order cut export prices to the nonprofit level of domestic prices.

OPA soon will meet committees from the Canadian industry for a discussion of the Canadian argument.

WAR BUSINESS CHECKLIST

A digest of new federal rules and regulations affecting priorities and allocations, price control, and transportation.

Steel and Iron Pipes

Standard specifications for steel pressure pipe, steel pressure tubes, and other types of steel pipe have been set, in line with schedules previously issued covering concrete reinforcement steel, structural shapes, barbed wire, and other steel products. The new specifications cover carbon and alloy steel piping in lap welded, seamless, electric resistance welded, and fusion welded grades; also boiler, cracking still, heat exchanger, condenser, and superheater tubes. A reduction of about 65% in the number of sizes and wall thicknesses shown in various pipe mill catalogs is effected by the order. (Schedules 11, 12, 13 of Order L-211.)

Specific maximum charges have been set for joint welding and prime coating services performed by sellers of re-usable iron and steel pipe that is reconditioned for sale. (Amendment 1, Revised Regulation 230.)

Paper

Grocers' and variety paper bags will be limited as a result of a WPB order placing a production quota on the paper tonnage which bag makers may use—for the first quota period (the month of September) at 12% of the tonnage used during the base period Oct. 1, 1941, through Mar. 31, 1942, and at 35% of the base tonnage for the following quarterly periods. Unused quotas may be carried over from one period to the next, and, to cope with seasonal variations, bag makers may borrow during the last month of a period up to one-third of the quota for the following period. The manufacture of any stock bag from more than one weight of the same grade of paper is prohibited in most cases, though a 5% tolerance in figuring paper basis weights has been provided. (Order L-261, as amended.)

New standards and maximum weights of six categories of writing and printing papers have been fixed by an order affecting practically all paper used in publications, including newspapers, magazines, and books, and all commercial printing papers, as well as writing, tablet, and envelope papers. It is expected that the weight reductions specified will increase the area of paper available by 15%. (Schedules I, II, IiI, IV, and V, Order L-120, as amended.)

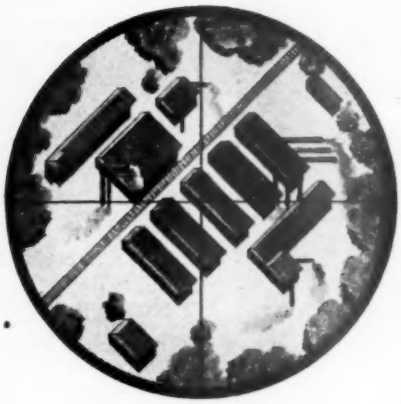
Anthracite

Acting under authorization of WPB, OPA has assumed control over the acquisition and use of anthracite coal by nonindustrial consumers to prevent accumulation of excessive stocks for space heating and domestic hot water or cooking purposes. Dealers in twelve eastern states and the District of Columbia are required to give first preference to orders from consumers who have on hand less than one-fourth of the amount of anthracite burned by them in the year ended Mar. 31, 1943; second preference goes to persons with more than one-fourth but less than one-half the amount used last season. No consumer may buy more than 50% of his base-period supply, however, and consumers with more than 50% in store may not buy coal at this time. The order does not apply to the armed services, lend-lease, and a number of other federal agencies, or to coal for industrial purposes, which is subject to the Solid Fuels Administration for War. (Ration Order 19.)

By order of Solid Fuels Administrator Harold L. Ickes, deliveries by producers and wholesalers of anthracite for domestic use to retail dealers throughout the country have been limited, for the period Sept. 1–Dec. 1, 1943, to 90% of their requirements in the fuel year ended Mar. 31. Anthracite used for industry, for power generation, for the Maritime Commission, and War Shipping Administration are exempted from this order. (Revised SFA Regulation 2.)

Tires

Distribution of a large number of serviceable tires will be expedited by a plan calling for the reexamination of the scrap piles of the Rubber Reserve Co. to save any passenger tires which can give some further service and which may be sold to tire deal-



Problems of precision bombing ...and how they are met

THERE'S A LOT MORE to precision bombing than pointing a bombsight at what you want to hit and dropping the bombs.

Ask the pilot or co-pilot. Ask the navigator or bombardier. Ask the gunners. Ask the radio man. Ask the ground crew.

First, they'll tell you, the plane must be guided through miles of trackless skies

to a target that's often no bigger than your own backyard.

You often take off with the thermometer at 120°, sweating like a horse in your heavy uniform. And soon you're up where it's 50 below zero and the sweat has turned to ice.

A determined enemy does all he can to stop you. You fly through a death-filled curtain of anti-aircraft fire. Enemy planes attack from all angles, trying to riddle you with machine gun bullets.

Fear gnaws at your nerves as the weary hours grind on. Fatigue tugs at your eyelids in the high altitude.

Finally, you spot the target. You're lined up! Then—Bombs away! Your mission is done. You turn back toward your base. The enemy pursuit planes, fuel tanks running low, skim back to earth. Then comes the let-down. Your cumbersome clothes are a weight on your chest. You feel light-headed, incredibly tired.

But *usually* you get back. You get back because you're physically tough, trained until every part of your job is almost automatic. You get back because every member of the crew is the same kind of man with the same kind of training.

And there's another reason... *instruments for precision control* that help you with your job.

Tools of war...built for peace

Where do the precision instruments come from? The answer is that they were developed in years of peace to assist transport pilots in their fight against fatigue on long flights and to add to the safety of *peacetime* air travel. Then they were

WILEY POST—his world flight suggested a possibility.

improved and adapted to war.

A typical example of these precision instruments is the Sperry Gyropilot. This is a device which automatically holds an airplane in level flight and on its course with unvarying accuracy.

The Gyropilot has been used on transport planes since shortly after Wiley Post proved it practical on his solo flight around the world 10 years ago this summer. Army experts were quick to see its possibilities. They helped Sperry develop an improved electronic model which you'll soon be hearing more about.

Moving the controls with hydraulic muscles made by the Vickers and Gyroscope divisions of Sperry, the Gyropilot frees the pilot and co-pilot from the strain of handling the plane except in combat or in emergencies.

It is also used to hold the plane on an exact and accurate course during the final bombing run.

BOMBER CREW—in the end, it's up to them.

Teamwork does the impossible

The Gyropilot is but one member of a team—a team of men and precision instruments. Among other members of the instrument team, are the Kollsman Sensitive Altimeter, the Norden and Sperry Bombsights, communications equipment made by Bendix and Western Electric, and many, many other instruments.

All these instruments help make precision bombing much more effective. Without them, we should lose a lot of men and bombers that we don't lose now. *But precision bombing still remains a tough, hard job for every member of the crew.*

In the end the things that count most are the endurance, skill, and guts of the bomber crews.

Our hats are off to these men. With their courage and skill, teamwork does the impossible.

Sperry
CORPORATION
30 Rockefeller Plaza • New York 20
FORD INSTRUMENT COMPANY, INC.
SPERRY GYROSCOPE COMPANY, INC.
VICKERS, INC.
VICKERS, INC., Waterbury Tool Division

cers upon authorization of the OPA district office. Transfer of used passenger tires now in the hands of manufacturers will be allowed upon OPA authorization, instead of in exchange for ration certificates, though consumers will continue to buy used tires only upon presentation of tire certificates. (Amendment 49, Ration Order 1A.)

Since higher grades of camelback are now available for recapping truck and passenger car tires, rationing restrictions have been removed on the use of Grade "C" camelback in recapping service. (Amendment 48, Ration Order 1A.)

Petroleum Products

To eliminate burdensome paper work, retail sellers of petroleum products are no longer required to file with war price and rationing boards their price data, formerly requested on costs of motor fuel, naphthas, solvents, mineral spirits, kerosene, and certain fuel oils. The amendment permits price adjustments to conform with minimum prices under state fair trade laws. (Amendment 36, Regulation 137.)

Drinking Water Coolers

Mechanical drinking water coolers, formerly available only for direct use by the Army and Navy, are now also available, upon authorization by WPB, for hospitals, new or enlarged industrial plants (except in offices or eating places), or for replacements in plants where existing coolers are beyond repair. (Amendment 2, Order L-38.)

Chromium Plating

Manufacturers of cutlery may now use chrome acid type chromium plating on all types of cutlery. Formerly such use was restricted to household table cutlery and hand hair clippers. (Amendment 2, Limitation Order L-140-a.)

Boneless Beef

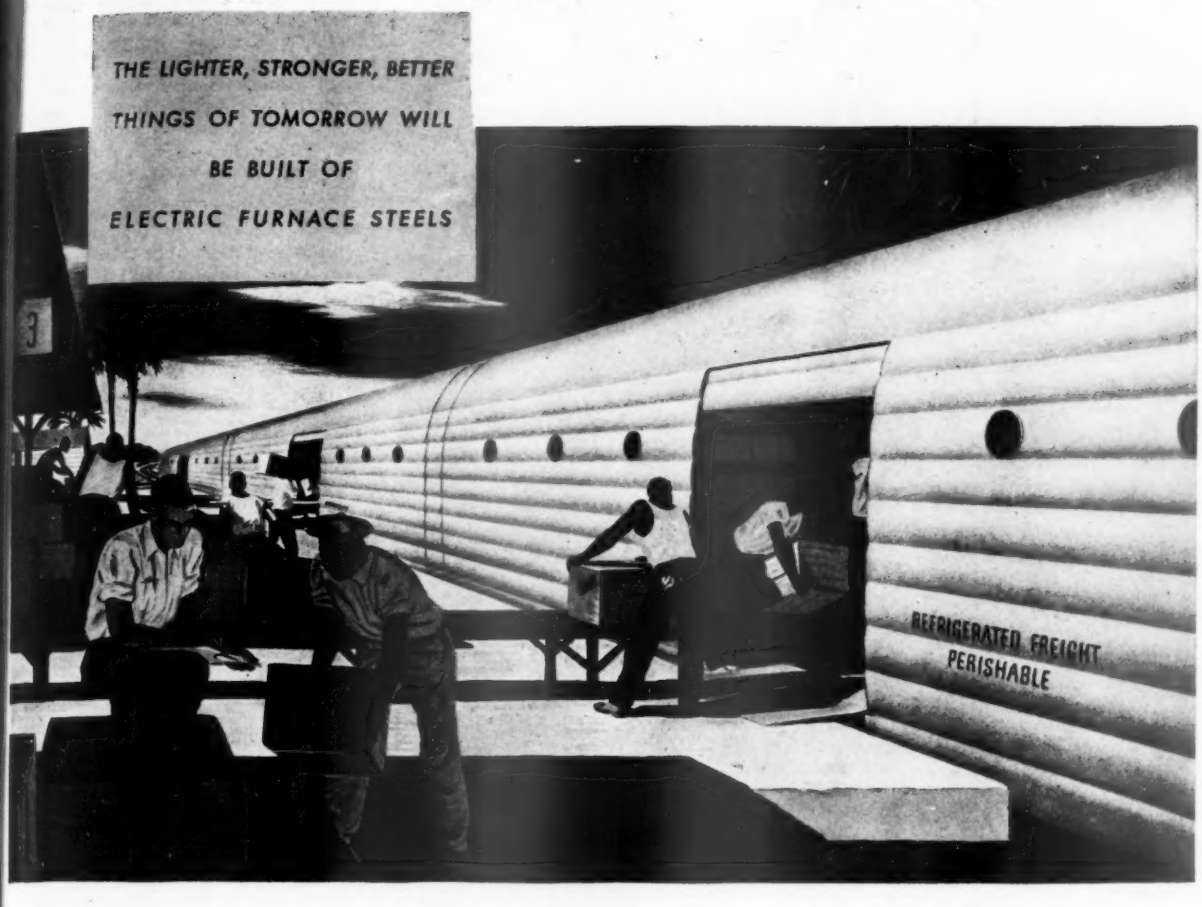
In recognition of the fact that the Army is using more and more boneless beef (BW—Nov.15'41,p39), the War Food Administration has taken steps to secure large quantities of boned beef by permitting federally inspected slaughterers to sell the carcass beef which they are required to set aside for government purchase directly to boning concerns holding contracts with the Army. Meat so sold may be credited against the amount reserved for government use. This amendment is retroactive, covering sales since Aug. 15. (Amendment 1, Food Administration Order 75.2.)

Leased Equipment

A person leasing to others equipment which he agrees to maintain in good order may use either his own or his customer's preference ratings and symbols to get materials needed to repair and maintain the equipment. (Amendment 3, CMP Regulation 5.)

Shoes

Upon approval of the OPA district office, shoe repair concerns, manufacturers, and dealers in leather scrap need not pay ration currency after Sept. 6 for new single shoes



Whisked to Market—by Streamlined Freight

Fruit—luscious with tree-ripened flavor. Vegetables—with that "just-picked" crispness. Some day you'll enjoy them that way—rushed from distant groves and farms—kept fresh while in transit.

Light, strong streamliners, proved in passenger traffic, can speed perishable shipments. Advanced methods of refrigeration, insulation and air conditioning can preserve quality. Engineers already have demonstrated their ability to design the equipment. And, when they no longer are needed for war production, Republic Electric Furnace Steels will be available to build it.

* * *

Republic Electric Furnace Steels are the special steels, alloy steels, "aircraft quality" steels and stainless steels which have made possible countless improvements in products and methods.

You'll find them in streamlined trains, in your car, in airplanes, in ships, in machinery and equipment—wherever the finest steels are needed—wherever the service is most severe.

You'll find them in the American fighting equipment now proving its superiority on battle fronts.

They are "targeted" steels—accurately hitting the bull's-eye of exacting product and processing specifications, and held to the mark by the extremely close control possible only in electric furnace melting.

Many products have been increased in quality and enhanced in sales appeal through the application of these steels. Many more could be improved. And the consistent uniformity of mechanical and heat-treating properties enables manufacturers to realize the full cost-cutting benefits of mass production methods.

With an electric furnace capacity nearly nine times what it was at the beginning of the war, Republic—leader in this field of steel-making—will be ready with finer steels for the production of better things to work with and to live with—in industry, in the home and on the farm. Republic Steel Corporation, General Offices—Cleveland 1, Ohio. Export Department: Chrysler Building, New York 17, N. Y.

REPUBLIC

ELECTRIC FURNACE STEELS

alloy... stainless..."aircraft quality"

—for hardness, toughness, high strength to weight ratio —for resistance to severe tensional, torsional and compressional strains, to shock and impact, fatigue, elevated and sub-zero temperatures, corrosion, oxidation, abrasion and process contamination.

that cannot be matched or for certain ... obsolete pairs manufactured before Jan. ... 1939 (an establishment must have 25 ... more pairs to comply with this order). Su... ration-free shoes must be used in repair... or in manufacturing new shoes, or for s... to others who will use them for these pu... poses. (Amendment 34, Ration Order 1...

Rubber Footwear

Minimum specifications for waterpro... rubber footwear, which all manufactur... must meet in order to be entitled to the sp... cific ceiling prices of MPR 132, have be... established by OPA after consultation wi... members of the industry. Makers of foo... wear which falls short of these standar... must apply to OPA for a ceiling. Oth... changes in the regulation provide that n... charge may be made for extension of credi... except as was in force in December, 194... and that state and federal taxes may b... added to maximum prices if such taxes ar... stated separately. (Amendment 3 to Regul... tion 132.)

Other Priority Actions

The amount of **rayon** available in Octobe... for manufacture of hosiery and other civilia... products formerly made of silk and nylo... has been increased to 85% of rayon kni... ters' and weavers' average monthly consump... tion of silk and nylon during the first s... months of 1941, by WPB's Order M-37-... . . . Onion shippers in twelve western an... northern states must obtain permits before... shipping **dry onions** in excess of 100 lb. ex... cept for nearby storage, according to Food... Distribution Order 77.

Other Price Actions

The cost of laminated **plastic sheets, rods, and tubes** used in the manufacture of... electrical equipment and radio was reduced... about 10% on Sept. 1. . . . Cut and sewed... **nylon lace hosiery** is given an increased... ceiling price by Amendment 3, OPA Regu... lation 95. . . . Manufacturers of women's... **rayon hose** may continue to mark them by... means of printed slips inserted in the stock... ings, instead of with attached markings... until Dec. 1, while wholesalers and retailers... may use the inserts until Jan. 1, 1944, ac... cording to Amendment 1, OPA Revised... Regulation 339. . . . Amendment 6, Regu... lation 94 permits producers of **western pine lumber** in Arizona and New Mexico... to add $3 per 1,000 b.ft. to basic maximum... prices of twelve grades and sizes of mate... rial sold under WPB Order L-290. . . . By OPA's Amendment 85 to Ration Order... 3, **sugar** is made available for canning sweet... potatoes and for freezing pears at rates... specified in the order. . . . Ceilings for... processors of **frozen peeled shrimp** have been... set at levels representing a reduction of... from 10% to 15% to the consumer by... Amendment 4, Regulation 364. . . . Maxi... mum prices on producers' sales of **broom-corn** are now $300 per ton for shed-cured... broomcorn and $250 for other broomcorn... . . . The $1-a-carload premium allowed to... processors of **cottonseed oil meal**, cake, sized cake, and pellets sold in the North... has been eliminated by OPA's Amendment... 2, Regulation 44. . . . Point values are... given dried **prunes** and dried **raisins** and **currants**, at four points per pound by the... new table of value points.

GROUND SERVICE "DE LUXE" FOR HUNGRY TROPIC FLYERS

Huge Pan American flying boats are weaving a tapestry of trade across the map of far-off places. Throughout the tropical wilds of Africa and South America, advance air bases have been built to insure the safe and speedy transport of goods for our global battle.

Miniature cities, mostly in the middle of nowhere, these bases offer ground service "deluxe" for hungry tropic flyers at the end of their jaunt—with fresh frozen fruits and vegetables, fresh beef and pork, iced drinks . . . all made possible by Chrysler Airtemp refrigerating units and temperature-humidity control equipment.

Chrysler Airtemp products, too, are boosting efficiency and output in countless war industries and serve our Armed Forces in many capacities. Read about the broad wartime uses of Airtemp equipment in the new booklet, *Chrysler Airtemp at War.*

Zero Welding

Instrument Repair

Precision Assembly

Drinking Fountain

BUY WAR BONDS

CHRYSLER AIRTEMP

AIRTEMP DIVISION OF CHRYSLER CORPORATION • DAYTON, OHIO

BW

CHRYSLER-AIRTEMP
Dayton, Ohio

Please send me, without obligation, "Chrysler Airtemp at War".

Name _____

Firm _____

Address _____

_____

PRODUCTION

Stampings Thrive

Manufacturers' volume has mushroomed since the Army redesigned ordnance items for use of metal stampings.

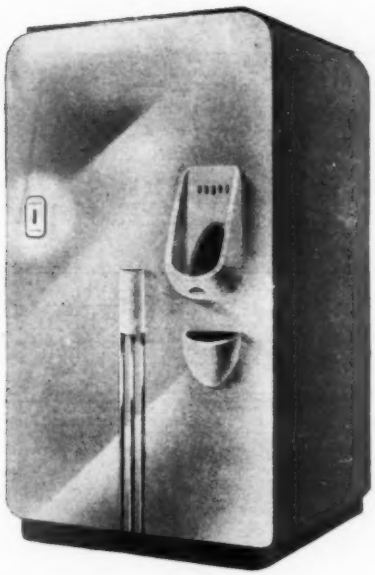
Bleak as their prospects looked after Pearl Harbor, producers of metal stampings are enjoying a volume of business materially ahead of their prewar output. Ordnance matériel had been designed in peacetime, made free use of castings, forgings, bar stock, but relatively few stampings. Unless military components could be redesigned for stampings, the manufacturers of these mass production parts saw little need for their plants in war work and a genuinely bleak outlook for the duration.

• **Items Redesigned**—Current operation of many stamping plants on a round-the-clock basis springs from two circumstances: (1) an open-minded consideration of suggestions by military departments, and (2) initiative of shop owners. Early in the war, in fact, Army Ordnance made a study with a view to redesigning certain items for manufacture from metal stampings. The motive was the need to conserve raw materials, machine- and man-hours. Civilians like George E. Whitlock, president of Mullins Mfg. Co., redesigned certain ordnance items to press manufacture,

SHORTER AND BETTER

Despite its rugged simplicity and fifteenth century origin, the bayonet is a precision-made weapon that is still being improved. The latest change, to improve marksmanship on rifles with bayonets fixed, is cutting its length from the 16-in. standard adopted by the United States Army in 1905 to only 10 in. In this steel-conserving form, it is now mass-produced by half a dozen firms typical of which is the American Fork & Hoe Co., Ashtabula, Ohio. Automatic machines do most of the production work, but only skilled hand workers are intrusted with grinding the keen edges (right). Plant manager F. B. Lutman (above) demonstrates the "lunge test" in which bayonets are plunged into wooden posts and left to support the weight of a rifle. The test is used to check each knife's strength and flexibility before it is delivered to Johnny Doughboy.

WHY SELL SIGHT UNSEEN?



WHAT'S SO SECRET ABOUT A DISPENSING MACHINE?

Must a dispensing machine be only a dispenser?

Why not make it a *selling* machine? Make it a magnet for the nickels, dimes and quarters that automatically release the soft drinks, confections, cigarettes, handkerchiefs, sandwiches, fruit, golf balls, cosmetics or other products that may be for sale.

How? With *glass*, of course. Modern Libbey·Owens·Ford glass. Take advantage of the unequalled transparency of glass to display the merchandise attractively . . . to dramatize the dispensing mechanism in operation. Capitalize the modern properties of glass to protect the merchandise—keep it fresh or new, appealing or appetizing.

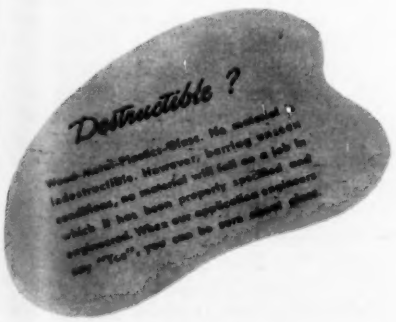
If the dispenser must be refrigerated, there is modern glass that insulates. If fading of the product is a factor, there's glass that will provide protection. If excessive heat from the sun is harmful, there's heat absorbing glass. Then there's safety glass, decorative glass, and a tempered glass that's stronger than many metals . . . in fact, there's a glass that answers practically every problem.

You can obtain glass in flat sheets, bent shapes, or laminated to another material. You can have it colorful, or color-free. Your name or sales slogan can be permanently etched or coated on its glistening surface.

The use of glass in a dispensing machine is typical of how glass can be employed to make any product or structure better, more efficient or salable.

Possibilities for the use of glass today are practically limitless. While research has multiplied its useful qualities, keep in mind its natural characteristics: one of the most chemically stable of all materials; more dimensionally stable, too; surface among the hardest and smoothest in the world; nonporous; acid-resisting; unusually resistant to abrasion; unequalled weathering qualities.

Perhaps glass fits your product or plant. Won't you write us about any use that interests you? That's the way to really find out. Libbey·Owens·Ford Glass Company, 893 Nicholas Building, Toledo 3, Ohio.



L O F LIBBEY·OWENS·FORD
A GREAT NAME IN *Glass*

COUNTING BY SHAKING

Hand counting the tiny glass jewels used in delicate aircraft instruments is a tedious eye-straining job. But an ingenious new device now sorts them out in 1,000-unit lots in a few shakes at General Electric's plant at Lynn, Mass. Loaded into the tray-like counter, the jewels are hand shaken until one drops into each of 1,000 individual holes in the bottom. Moving a slide opens the holes to drop them into a small drawer—leaving the rest for the next shake. The bearings are so small that a one-gallon jug will hold a half-million of them.

then plugged their ideas in Washington.

● **Armed for Competition**—Stamping manufacturers are learning much from war work that will stand them in good stead in the postwar competition with plastics, glass, and other materials. Here are some examples:

Plugs that go in the ends of the piston-pin hole of aircraft-engine pistons were turned from aluminum bar stock. Shortages in bars resulted in a shortage of 500,000 plugs. A stamping manufacturer learned how to make the plugs from sheet steel and to braze a silver wear button on the head. Cost of the new design is 10% less, and the shortage was overcome in two months.

Stamping plants are learning how to combine their products by brazing and welding, making a simpler, more serviceable assembly. The bursting tube for the M-15 bomb was originally composed of a welded tube with a cap and adapter silver-brazed into place. Trouble was experienced with leakage at the cap. As suggested by the stamping manufacturer, the assembly now consists of a drawn tube with the adapter welded in place, eliminating the cap, and saving welding time and inspection time.

Production of parts to close tolerances and completely finished by press work has been achieved. One firm is now stamping small gears to 0.002 in. run-out and with splines that will assem-

...le in any position on the mating shaft with all surfaces bearing a burnished finish.

Economy Stressed—Reduction in material consumed and lower costs are the two points that the services are concerned with now, but the stamping people intend to ballyhoo them after the war too. The machining loss, or scrap, with forgings, castings, and bar stock, especially on munitions components, runs between 30% and 70%. Frequently stamping waste is a small fraction of original weight, the value of the scrap being several times that of machined chips.

Conservation bulletins issued by government agencies tell the story. In one case, an aircraft engine component was machined from stainless steel bar. The part is now stamped from sheet at a material saving of 80%, a cost reduction of 45%. On one order, the saving amounts to $660,000.

• **Peacetime Volume Surpassed**—Stamping companies began to edge into the war production picture late in 1942. Some are now away out in front of anything they attained in peacetime.

The trade association for the stamping trade is the Pressed Metal Institute (19 W. 44th St., New York City). Membership stands at about 100 contract stamping plants and those which make stampings on a jobbing basis and for use in their own end products. Ultimate goal is 500 member firms.

Cattail Harvest On

From now until the end of March, farmers can gather the substitute for kapok and find a good sale for the fluff.

Next week farmers in southeastern Wisconsin will begin harvesting cattail fluff—a new crop whose $30-per-acre yield compares well with today's high farm prices, since it requires no planting or cultivating.

• **Experimental Batch**—Last year Burgess Battery Co.'s pilot plant at Ashippun produced about 75,000 lb. of typha from cattail fluff on a strictly experimental basis as a substitute for kapok (BW—Dec.5'42,p55). About 50,000 lb. was marketed, the rest used by Burgess for experimental purposes. Production plans this year call for 100,000 lb. monthly—a rate which could easily be stepped up to produce a total of several million pounds in the six-month processing season.

Now that the government's stockpile of kapok (normally imported from Java) is running low, military men are turning to domestic fibers. For instance, the Navy is ready to use milkweed floss in

life preservers, aviation jackets, etc. (BW—Aug.21'43,p68). So far Burgess hasn't urged military use of typha; the company is satisfied to build for postwar markets.

• **Softball Cores**—Generally speaking, those markets will be for practically any use that formerly required kapok, such as life preservers, boat cushions, toys, and insulating blankets. More than one manufacturer plans to use typha in the core of softballs this year. Experiments indicate that typha is admirably suited to lightweight heat insulation (example: mobile refrigerators like those used by Good Humor men) and for noise absorption, as in sound-conditioning ceiling materials. Among possible byproducts still awaiting development is oil from cattail seeds, which resembles castor oil.

As long as kapok came into this country at a low price, because of cheap native labor in the Far East, there was little chance to develop American fibers. Burgess believes typha can hold its own even in the competitive postwar market because at 15¢ a pound it is cheaper than the ceiling on kapok (17¢ to 20¢) and much cheaper than milkweed floss which sold in small quantities for experimental purposes last year at 65¢. Milkweed floss, its enthusiasts declare, can be cultivated and harvested by machinery, and this should bring the price to about 20¢ a pound after the war.

• **Longer Harvest**—The biggest advantage typha claims over milkweed floss is that milkweed pods must be gathered during the early part of September when farm labor is scarce, while cattail fluff can be gathered until the end of March.

Typical harvesting practice is for one man who owns a truck to organize a crew of four. One such crew stripped the fluff from about 100,000 'tails in one swamp last year, for which the crewmen received $165 cash, delivered at Ashippun. They paid the owner of the marsh $35 and reimbursed the truck owner for transportation costs, netting each man about $30 for four days' work.

• **Saving on Transportation**—Last year Burgess paid $2 a thousand for cattails; this year's rate of 5¢ a pound for the fluff only is more satisfactory since it reduces transportation costs. It also benefits long-distance shippers who can bale the fluff in an ordinary paper baler. Ordinarily Burgess discourages nonresident shippers since Wisconsin can supply more than enough fluff, but this year the company will accept whatever it receives.

A typha plant requires only a small investment: Burgess claims it can set one up in a new cattail area for less than $3,000 (using a rented building), and that production could be going full blast within two weeks. Machinery required is simple and can be built quickly from noncritical materials.

RUBBER SAVER

Turned out on ordinary carpet looms, a new tire retread strip requires only 40% as much rubber as conventional types, according to reports of its maker, Alexander Smith & Sons Carpet Co. Woven with a cotton warp and a weft of reclaimed rubber cords, the oversize breaker strip is overlaid during the recapping process with a thinner layer of rubber tread stock than is normally required.

Alloys Get Easier

Leaner mixtures, better scheduling, and cutback in tank program take pressure off this branch of steelmaking.

Steel mill sales managers are rubbing their eyes these days with something resembling disbelief as they scan incoming orders for alloys. The orders have shrunk considerably, and there's no really good explanation.

• **Lean Alloys Employed**—WPB and arms producers were clamoring for alloy steel last winter. Electric furnace capacity was booked for months ahead. Alloying elements like nickel, chromium, manganese, and molybdenum were in such demand that reserves were low, and the national emergency steels, with specifications of lowered alloy content, were put to use as a conservation measure (BW—Aug.29'42,p50). Every effort was being made to respecify war products to use less alloy and more carbon grades.

Gradually the orders for alloys have been diminishing, although they are still very high. One medium-size mill's books recently showed that its proportion of alloy steel output was about

This *Emerson-Electric* Device Pioneered the Use of *Motors* on Home Heating Equipment!

Illustrations from Emerson-Electric Advertising of 1908

CLOSE UP OF BLOWER
(Blade Side)

This fan-type blower was a logical adaptation of the then time-tested Emerson-Electric fan. Installed in return air duct of the furnace, it supplemented the inefficient gravity method of distributing warm air to all parts of the home.

Store Solid Fuel Now!

Since 1908—when this furnace blower was introduced—a vast new industry has contributed to the raising of American living standards.

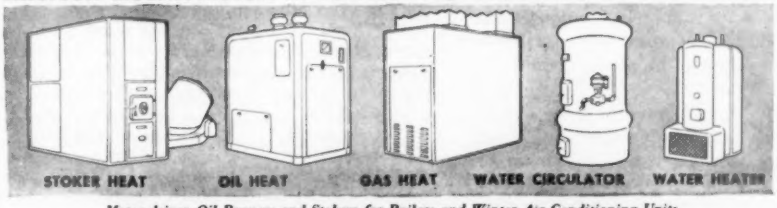
Thanks to the ingenuity and progressiveness of heating equipment manufacturers, the people of America will be warmer and healthier next winter than any nation on earth—despite the necessity for fuel conservation.

Since this pioneering idea of a furnace blower was introduced, 35 years ago, the industry has advanced by tremendous strides, using electric motors for many purposes.

All through the years, Emerson-Electric has kept pace, designing and producing precision-built motors for numerous types of mechanical-firing and air-moving heating units. Other new and startling developments are in waiting for the home of the future. "After Victory", manufacturers of heating equipment will again confidently power their units with Emerson-Electric motors, based on the latest conceptions of design, construction and efficiency.

THE EMERSON ELECTRIC MANUFACTURING COMPANY
SAINT LOUIS
Branches: New York • Detroit
Chicago • Los Angeles • Davenport

Emerson-Electric Motors in Service Help Guard the Nation's Health



Motor-driven Oil Burners and Stokers for Boilers and Winter Air Conditioning Units.
Motor-driven Blowers for Coal, Gas and Oil-fired Winter Air Conditioning Units.
Motor-driven Hot Water Circulators—Motor-driven Oil Burner Water Heaters.

332

EMERSON ELECTRIC

MOTORS • FANS • APPLIANCES • A. C. ARC WELDERS

half of what it had been the week before. That is probably an exaggerated condition, but it does point a trend.

• **Less Overbuying**—Steel men are apt to give the Controlled Materials Plan a share of the credit for relief. CMP, they say, has put steel ordering on a logical and sound basis, and orders now are not built up beyond actual need.

WPB's "save the steel" drive may also be a factor. Of the million-odd tons of steel turned back thus far, 20% or so has been in alloy classification, and this acts to relieve stress.

• **Cutback in Tanks**—A third factor which may be involved is the reduction of the tank program. Medium tanks of 28 tons or so required huge proportions of alloy, not alone for parts but for ponderous armor-plating. Tank production has been edging steadily into lower ground since the first of this year. Continued production of tank destroyer vehicles, largely replacing the tanks on battlefields, does not drain alloy steel so heavily.

Some steel men believe alloy steel's critical point may have been passed, what with lowered demand, specification substitutions in end products, and increased output facilities.

Hormone Profits

Pregnant mares yield owners nice return in production of new estrogenic hormone, helpful in menopausal treatment.

Medical science is not fastidious in the materials from which it produces pharmaceuticals designed to alleviate human ills. Recent research in the treatment of women during menopause involves the collection of urine from pregnant mares as the raw material for the production of estrogenic hormone.

• **Doctors Cautious**—Though results are promising and a number of doctors prescribe its use, others are watching the development with professional caution, not committing themselves pending a time when the effects of the remedy are determined beyond any doubt. Lakeside Laboratories, Milwaukee, one of the largest producers of estrogenic substances, states boldly that "estrogen therapy alleviates menopausal symptoms and serves to ease the patient through a too-abrupt change."

In addition to an objection against employing a new drug until its precise reactions are indisputably proved, doctors have another reason for caution. It is reported that there is an illegal market in estrogenic substances which are claimed to produce abortions. Also, there are creams on the market with an estrogenic content which are sold as bust developers. The Food & Drug Admin-

...ration is said to be investigating these products. FDA's ruling is that estrogenic substances may be sold only on doctors' prescriptions.

Greater Supply Sought—Legitimate production of estrogenic hormone has reached the point where manufacturers are trying to induce horse breeders to aid in increasing basic supplies. Lakeside Laboratories has an annual capacity of 150,000 gal. of urine, is currently in the market for between 50,000 gal. and 75,000 gal., which it sees little chance of getting. Other large-scale producers are E. R. Squibb & Sons, Eli Lilly & Co., Endo Products, Inc., Abbott Laboratories, and Parke, Davis & Co., some of which get urine from their own horses kept for producing antitoxins.

It is not practical to collect urine on a farm harboring fewer than 40 mares, but manufacturers suggest that several farmers could form a urine "pool" to their mutual advantage. The pharmaceutical laboratory provides barrels for shipment and pays shipping charges.

$50 a Gram—Prices vary according to the estrogenic hormone content of the urine. Last year Lakeside Laboratories' average price was about 60¢ a gallon, but the company has paid as high as $1 and finds it profitable to accept shipments from as far afield as Kansas and the East Coast. It takes about 10 gal. of good-quality urine to produce a gram of estrogenic hormone in crystalline form. Manufacturers' price is around $50 a gram or $22,680 per pound.

Nine days after a mare drops her foal she is usually bred again; urine can be collected from the time the colt is weaned until within 90 days of the next foaling. Production of a satisfactory grade of urine may involve some changes in feeding, such as restricting the amount of clover and other leguminous hay, but no greater expense. Taking care of ten mares is a full-time job for one man, and usually two shifts are worked. A theoretical monthly balance sheet for a farm with 40 pregnant mares is as follows:

Urine collected, 2,400 gal. at 60¢		$1,440
Feed at $18 a mare	$720	
Labor, 4 men at $100	400	
		1,120
Profit		$320

Limiting Factors—There are serious limiting factors, however. The only breeders with mares enough to make urine collection worthwhile are (1) western cattle ranchers who keep brood mares to raise cow ponies, and (2) breeders of race horses and other fine stock. But the ranchers' mares are apt to graze the open range all summer, and the breeder of thoroughbreds will not confine a blooded mare to the stable and risk the future of a colt that might be worth thousands.

See in the Dark

"Black light" goes to war, enabling map reading at night; device also has led to finding of strategic mineral deposits.

Little publicity has been given to the use of "black light" (ultraviolet light radiated by "black" bulbs) as a war weapon. One of the latest products of research in the fluorescent field is a thin fluorescent plastic cover for maps through which they can be read in the dark under radiation of such black bulbs.

• **Wartime Applications**—The map-reading device was developed by Dr. J. A. DeMent, 23-year-old Portland (Ore.) scientist now doing research for the Army and Navy on military uses for black light, especially in the field of aircraft instruments, camouflage, secret signaling, and methods of espionage and counterespionage. Many of Dr. DeMent's developments, incidentally, have postwar commercial possibilities, he believes.

Biggest war use of black light, of course, has been in uncovering deposits of strategic minerals, especially in unlocking continental America's greatest storehouse of tungsten. Overseas sources, particularly Chinese, were choked off at the same time that war created a tremendous new demand for tungsten in steel hardening.

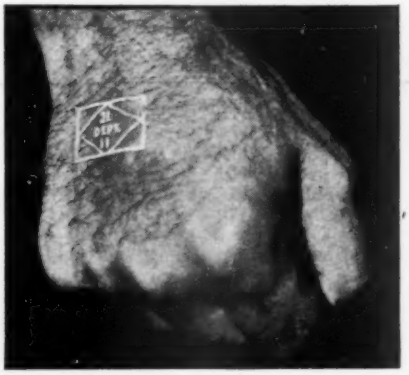
• **Seek One Ore, Find Another**—Members of the U. S. Geological Survey were prospecting for antimony ore (stibinite) in the Salmon (Idaho) region and sent test cores to Washington, D. C., for analysis. A chemist noticed that one of the cores glowed a bright, light blue color under ultraviolet light. This is characteristic of scheelite, an ore yielding tungsten. Diamond drill exploration was hastily extended, and a deposit valued at more than $100,000,000 was delineated. The deposit is being actively worked.

Prospectors find it extremely difficult to detect scheelite by daylight methods because of the wide variety of rocks in which it appears. When exposed to ultraviolet radiation in the dark, however, the scheelite advertises its presence as conspicuously as a neon sign.

• **Prowlers "Mined" Dump**—One California tungsten mining operation adopted ultraviolet light in its plant after it discovered that members of a mineral society were finding hundreds of dollars worth of ore by prowling at night over its dump. They were equipped with small portable black light outfits.

Elusive mercury, one of the most difficult minerals to discover, now is quickly found by means of a black light technique. The prospector uses a torch to heat a section of wall in a mine. He then shines ultraviolet radiation across the heated spot and onto a fluorescent screen. If even a microscopic amount of mercury is present (as little as a few parts per thousand), it will send off a vapor which will cast a shadow on the fluorescent screen.

• **Hunting for Zircon**—Analysts with black light have helped uncover important sources of zircon, notably in British Columbia and North Carolina. In recent years, the zircon has become a popular jewel with much of a diamond's sparkle at considerably less cost, but wartime searchers are more interested in obtaining this mineral in commercial quantities for making a high-tempera-



SECRET STUFF

Employee identification takes on the intrigue of a spy film as a result of a new method developed by Chicago's Sun-Kraft, Inc. On workers' hands are painted secret marks in invisible ink, glowing only under "black light" lamps (right). Indelible, the ink resists many handwashings.

e furnace-lining material. The zircon ows yellow to orange under ultraviolet diation.

New Jersey Zinc Co. has pioneered e use of black lamps on its sorting bles. The lamps are widely used, o, in the detection of molybdenum d uranium.

Warning to Axis

Triptane, new superfuel or aircraft, promises to soup ngines up far beyond limits of uftwaffe's best.

Petroleum chemists knew seven years o that they could make an aviation el that would excel any other known el. This powerful substance, with tiknock properties beyond anything isting engines could utilize, is 2-2-3 imethylbutane. With methods then ailable, anybody could produce it as laboratory curiosity—by the ounce, not the ton—and the cost figured over ,000 a gallon.

Drawbacks Persist—Nobody ever had ough of the long-named material to it in an airplane engine until, less an two years ago, some experimenters anufactured several hundred gallons. he stuff proved just as good as ex-cted in souping up the power by its tiknock properties. But this experi-ental batch cost around $40 a gallon, nd plants to make it would have re-uired critical materials in quantities yond what could be obtained.

Last week, Dr. Gustav Egloff, re-arch director of Universal Oil Prod-

Inventor of triptane, new superfuel for war planes—and for postwar engines—is V. N. Ipatieff, who worked the process out with an associate, Vladimir Haensel, in the laboratories of Universal Oil Products Co.

SIGNAL CORPS PHOTOGRAPH

Photo shows handling of 2000-pound block buster at Seneca Ordnance Depot

BLOCK BUSTERS

Handling of block busters in the storage and distribution depots of our armed forces would be a serious problem if it had to be done manually. Merely the one job of loading them aboard outgoing carriers would, in total, waste more time and manpower than we could well afford to spare.

Fork trucks, operated by women, handle them easily, quickly, safely, and without damaging them.

Their efficiency lies not so much in their ability to *carry* the bombs. Any kind of wheeled vehicle of ample capacity can do that, once it has been loaded. Their most important saving in time and motions comes from the fact that they also *pick up* the bombs and can *tier them above one another* to save space in storage.

Similar methods applied to the handling of virtually all kinds of war goods are saving valuable time in marine terminals, both man-time and turn-around time of the ships that are carrying them overseas.

By the time the war is won, it will probably be found that material-handling efficiency, both in production and distribution, has advanced several times faster than during any like period of time before.

ucts Co., announced progress which may revolutionize military aviation now, civil air transport after the war. Two scientists in U.O.P.'s big research laboratories, Dr. V. N. Ipatieff and Dr. Vladimir Haensel, have devised a simplified process for producing this superfuel at temperatures and pressures commonly available in oil refinery practice, using equipment standard in the industry and no tricky designs.

• **Its Name Is Triptane**—Raw materials of their process are condensable gases that come out of oil refining in large volume as byproducts, and the catalysts are readily purchasable. Cost of making the material in the U.O.P. pilot plant at Riverside, Ill., is well below $1 per gallon. This cost is predicated on 300 hours operation and indicates to refinery men that commercial-scale production can pull down the selling price to the level of high octane aviation gas. To sidestep the tongue-twister that chemists use to indicate the molecular formula of the potent fuel, it has been renamed triptane.

Liquid recoveries of over 90% are obtained from the new process. Of this, over 50% is triptane. Two other valuable antiknock hydrocarbons come off as byproducts. These materials are neohexane and 2–3 dimethylbutane, both of which are claimed to be superior to alkylate for blending in aviation gasoline.

• **Up Go the Ratings**—No engine is better than the fuel it was designed for. Current U. S. military aircraft are powered for gasoline that rates 130 on the scale which has supplanted the old octane scale and are able through fuel superiority to outperform the Luftwaffe's best. The War Dept. recently asked the petroleum industry to work for 140 as the standard aviation fuel.

Where triptane rates is a military secret, but it is so much higher even than 140 that its use in airplane engines designed to utilize its full power would currently give Allied planes a 50% power-plant edge over Axis aircraft, would reduce the best German planes to tactical impotence.

• **No Distant Dream**—This is no visionary idea studded with ifs. The engineering and construction problems are relatively simple. Today's Allied engine designs can be fitted to triptane merely by making the cylinders smaller and stronger. If, as expected, the Army and Navy give this development the green light over other critical programs, by the spring of 1944 aircraft to use triptane may be coming off the production lines, and the fuel can be flowing from refineries fast enough to supply these new planes.

Until the new planes are ready, available triptane could be used to blend with high octane aviation fuels to improve performance to the limit of present designs, that is, approximately 25 m.p.h. over present military air spe

• **No Use to Adolph**—Even if Ge technologists were given full acce the new American processes and k how of making triptane, this coul of only slight military advantage Hitler, Dr. Egloff asserts. Oil a ble in German-held Europe would supply the raw materials for ma triptane in important quantities.

PUBLIC TO GET DRUGS

This month, two important drugs will become available to the g eral public through physicians: Deme a synthetic substitute for morphine veloped by Winthrop Chemical; famerazine, a low-toxicity sulfa co pound developed by Sharp & Doh

Chemical name for Demerol "1-methyl 4-phenyl-piperidine 4-carb ylic acid ethyl ester hydrochloride." is a somewhat bitter, white, crystall substance described as having all t advantages of morphine plus several its own. It is said to be the "first dr that pharmacologically relieves all ty of pain" and to be less habit-form than derivatives of the opium pop Uses range from the easing of chi birth to the relief of acute asthma.

Chemical name for sulfamerazine "2-sulfanilamide-4-methylpyrimidine" "monomethylsulfadiazine." Though looks and tastes very much like sulfad zine and sulfathiazole, it is descrbe as being "more rapidly and complet absorbed from the gastro-intestinal tr and more slowly eliminated by the ki neys." Hence two or three doses w have the effect of four to six doses its predecessors. The new compou has already run up good records in t treatment of infections due to hem lytic streptococci, meningococci, pne mococci, and gonococci, is expected "displace the sulfonamides now co monly used."

IDEAS PAY OFF

Under a plan started last week, em ployees of the Consolidated Vultee Ai craft Corp.'s Vultee division in Downe Calif., may draw royalties for the fu life of patents on aircraft manufacturi ideas submitted to the company.

Workers may sign an agreement wi the firm to submit ideas. If the id proves practical and patentable, the com pany takes out a patent. The employe gets $10 when the idea is approved b the company, $40 when the patent applied for, $50 if the patent is issue If it brings revenue from use, license, sale, the worker gets 30% of the fir $1,000, 25% on the next, and 20% thereafter for the life of the patent.

Another aircraft company, Glenn L Martin Co. of Baltimore, recently an nounced adoption of a somewhat simil arrangement (BW—Aug.28'43,p87).

WELDING THE WORLD OF TOMORROW

In every phase of your peacetime living—in your home and your travels, at work and play—you will enjoy greater convenience and economies, new comfort and safety, all gifts of the war-proved science of welding.

★ ★ ★

A squadron of burly tanks thunders into action—nimble, deadly . . . WELDED! . . . Trim navy patrol craft slide from the ways—from stem to stern . . . WELDED! . . . Howitzer carriages, anti-aircraft gun mounts, trench mortars, mounts for huge cannon . . . WELDED! . . . Thousands of light-weight railroad cars built in the last decade by Pullman-Standard have been WELDED!

Spurred by war's vast demands, industry is welding everything that can be welded—to gain extra strength, save metal, lessen weight and hasten production. For in two high-pressure war years, welding science has been advanced at least ten years—has perfected better methods for welding a far wider range of metals; and welding speeds have been greatly multiplied.

Welding "know-how" since 1911

Helping to guide this development in paths of greatest usefulness are the plants of Pullman-Standard. We know welding of old, for we began welding parts of passengers cars as early as 1911. Out of our plants have come vital new methods and new devices, to simplify and broaden welding practice. That welding "know-how"—plus sectionaiized fabrication—was the reason the Navy selected Pullman-Standard to build ships.

To you and your everyday living in the world of tomorrow, this extraordinary development of welding science means lower cost, durability, lighter weight, greater strength, and safety.

Your beds, your chairs, your desk . . . your refrigerator, cooking range, laundry appliances, heating plant . . . the gleaming kitchen shelves, and countless useful utensils . . . all WELDED. Structural skeletons of your children's school, your public buildings, your bridges and factories . . . WELDED. The great liners of air and sea . . . WELDED. The buses and trolley coaches, cars for elevated roads, subways and street railways . . . all WELDED. Aircraft and jeeps, pipe lines (the "Big Inch"), the huge machines and machine tools that shape and finish thousands of products: *All have weldments.* Even armor plate for our fighting ships, long considered a welding "impossible" . . . today is WELDED!

Here are the benefits that welding brings to railway transportation in passenger and freight cars

Truly it is difficult to think of another industry that will gain so much from welding technique perfected and proved in the great laboratory of war production. Think how every ton saved in freight car weight means an additional pay load that can be carried. Think of the thousands upon thousands of useless pounds of dead weight eliminated from each passenger car without sacrificing safety. Think of the benefits of longer lived cars, and of the money that welding will save for the railroads through lower operating costs.

To make sure that Transportation *gets* those benefits is a stirring assignment for Pullman-Standard. Here you find the essential experience. Here is the basic technical knowledge, seasoned by mastering war production tasks in astonishing variety.

★ ★ ★

And, above all, here are Men! *. . . a smooth-working, disciplined team: Men of canny resourcefulness, men zealous to do a* good job, *men full of restless urge to find* better *ways! And the star that guides them—bright beacon leading to a world of new and greater convenience and economy, comfort and safety—is the blazing arc of the welder!*

BUY MORE WAR BONDS AND STAMPS!

PULLMAN-STANDARD CAR MANUFACTURING COMPANY

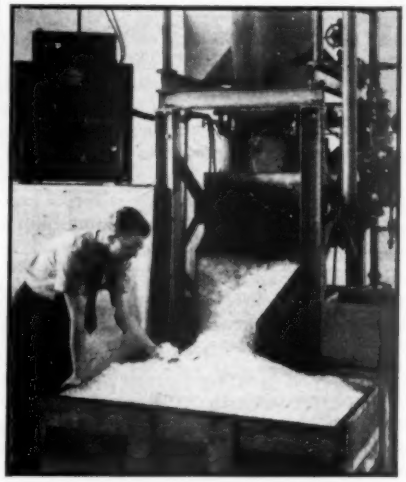
Chicago, Illinois . . . Offices in seven cities . . . Manufacturing plants in six cities

NEW PRODUCTS

Tube-Icer

Traditional method of making "sized ice" for cooling beverages, foods, and food displays is to saw or crush it out of larger chunks. Newest method is made possible by the new Vogt Automatic Tube-Ice Machine, manufactured by Henry Vogt Machine Co., 1941 Heuser St., Louisville, Ky. A unit just getting into service occupies only 64 sq. ft. of floor space to supply about the same daily output of ice as a conventional 30-ton can-ice freezing tank occupying 652 sq. ft.

Business part is a vertical cylinder within which water is frozen into thin ice around the inner periphery, cracked loose, and delivered automatically as tube ice. Each batch takes about 13 minutes. If heavier, unbroken "cylinder ice" is required for other purposes, the freezing cycle takes about 40 minutes. The machine, which will come in capacities from three tons up, will also supply chilled water required for process work in many industries.



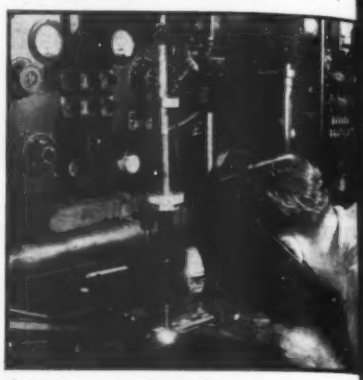
Bionol

Water solutions of Bionol Metal Cleaner and Degreaser promise effective action in one to three minutes at a temperature of 140F. The chemical is a new formulation of Biofen Laboratories, 14 Sixth St., Bridgeport 7, Conn., described as a "complex organic ester containing the amide and sulfonate radicals . . . combining the action of a powerful emulsifier and wetting agent . . . noncorrosive and can be used on both steel and brass parts."

Helium-Shielded Welding

Welding magnesium, aluminum, and other light, high-strength alloys with an electric arc became practical this year by protecting the metal against burning with a "shield," or enveloping atmosphere, of inert, nonflammable helium gas (BW—Apr.24'43,p50). Now it is announced that General Electric Co. Electric Welding Division, Schenectady, N. Y., is ready with new Helium-Shielded D.C. Arc-Welding Equipment for either manual or automatic operation.

Heart of the apparatus is an electrode holder which not only holds a tungsten or carbon electrode perpendicularly to the work, but also has a slanting tube (lower left) for feeding filler wire to the arc and means for surrounding the operation with helium. A new electronic motor control (right) maintains the proper length of arc while it "climbs" and descends inclines such as are encountered, for example, in welding curved-surface parts."

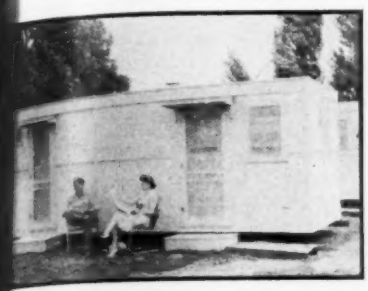


Portable Home

One solution of the housing problem in congested war production areas is the Kalamazoo Portable Home, new product of Kozy Coach Co., 1804 Reed St., Kalamazoo, Mich. It provides compact living accommodations for four adults in a 20x8-ft. space. There are three main rooms: a living room with davenport which opens out into a double bed, a heating stove, a gateleg table, and a 20x31-in. wardrobe; a bedroom with double bed, a 20x30-in. wardrobe, and a ventilated 24x30-in. closet that can be equipped as a toilet; a kitchen between the two rooms with gasoline stove, ice box, sink, table, cupboard, and drawer space.

Both the living room and the bedroom, which are finished in ivory with woodwork to match, have their own doors to permit war workers to leave their sleeping quarters without disturbing other occupants. The kitchen is finished in Masonite tile. All floors are linoleum. Exterior is Johns-Manville slate-gray Flexboard which requires no paint; frame and trim are painted wood. Roof, floor, and walls are insulated for

…nter warmth and summer coolness. …e home is delivered by trailer truck …dy for occupancy, lifted off, and …ounted on six concrete blocks. After



…e war, it may be removed to a new …cation for a new career as a summer …ttage or tourist cabin.

…ew Products Briefs

Also reported this week, not only for …eir interest to certain designated busi…ess fields, but also for their possible …mport in the postwar planning of more …r less allied fields and business in gen…ral, are the following:

• **Aviation**—U. S. Electrical Motors, Inc., …os Angeles 54, Calif., and Milford, …onn., is bringing out a new line of Air…raft Motors in sizes from ⅛ hp. to 15 …p. They have magnesium-alloy hous…ngs for lightness, operate on three-…hase, 400-cycle, a.c. current, hence …ave neither brushes nor commutators. …ynchronous speeds of 6,000, 8,000, …nd 12,000 r.p.m. can be provided; …ower speeds are available through in…tegral-type gear reducers.

• **Foundry**—The Aro Equipment Co., …ryan, Ohio, is bringing out two port…ible new Aro Pneumatic Production …Grinders for cleaning up hard-to-get-at …places on castings. Model 221 has a but…on throttle control; Model 321, a lever …throttle. Both whirl 2-in. diameter abra…sive wheels at speeds from 15,000 r.p.m. …to 18,000 r.p.m. They can also be …equipped with rotary file burrs which …are particularly effective on aluminum …or magnesium castings.

• **Railroading**—Two years of shipping …tests with a variety of commodities in…dicate that the Albright Condensation …Extractor, new product of the Albright …Condensation Extractor Co., 919 N. …Michigan Ave., Chicago, more than …saves its cost by eliminating the clerical …costs of freight claims for condensation …damage. The extractor is made in two …parts: an inexpensive holder to be nailed …on the inside walls of a freight car, and …a replaceable frame filled with calcium …chloride. At the holder's bottom is a …small tank calculated to hold all the …moisture extracted by the chemical from …the air. The purpose of the unit is not …completely to dehydrate the air in a …car, but to hold its humidity below the …dew, or condensation, point.

MARKETING

A Little Liquor

Distillers see some hope of resuming production, but it won't justify a spree; expect 12,000,000 gal. for blending.

Despite a good many false starts, the liquor industry now figures it can really count on the War Production Board to come through with an order permitting distillers to resume production of alcoholic beverages. But it won't be the liquor "holiday" which parched consumers and dealers have been all set to greet with the spirit of repeal.

• **Shallow Cheer**—Consumers who have been dreaming of more and bigger drinks for everybody and dealers who hoped to restock empty shelves will find the liquor furlough is not what it seemed. What it will mean, distillers bravely tell anxious customers, is that rationing systems in 17 states where liquor is a state monopoly may not have to be tightened, and that in the open states producers' quotas won't have to be cut further.

Distillers expect that what they will get for neutral spirits will be 5% of current industrial alcohol production. Assuming that the present rate of about 240,000,000 gal. a year is maintai and the 5% forgiveness continues a year, 12,000,000 gal. will be avai for blending present stocks of whisky.

• **Year and a Half Supply**—But stockpile is nothing to cheer a tipp heart. Of 418,532,000 proof ga whisky on hand the end of July, 000,000 gal. have been set aside postwar aging as insurance again green whisky era such as that w followed prohibition; and ano 1,000,000 gal. must be discounted allow for soakage and evaporation. remaining 218,000,000 gal. plus year's supply of neutral spirits now hand (25,000,000 gal.) and the cove 12,000,000 to be collected on furlo add up to 255,000,000 gal.—or abou year and a half's supply based on 1 consumption.

Last year consumption ran 190,0 000 wine gal. (167,000,000 tax or p gal.), but Allied Liquor Industries, I estimates that rationing and allocat systems will hold it down to arou 75% of that this year. Withdra in the first six months of this y amounted to 52,613,000 gal., sig cantly less than the 58,012,000 withdrawn in the same period of 19 but considerably higher than the 483,000 gal. released in the first months of 1941 when distillers had

EASY INVENTORIES

Unit managers in Crown Drug Co.'s chain of 85 midwestern stores breeze through inventories in one day using a novel "walkie-talkie" system. All they do is walk up and down the aisle calling out the number of units and the unit price of each item into small microphones slung around the necks (left). Through Dictaphone Telerecord equipment, entries are r corded on ordinary wax cylinde which are transcribed and calculate by girls at the home office (right Each store uses from 15 to 30 record for its oral inventory which is doubl checked by two calculators.

This one's going to hurt!

Invasion comes high—in blood and money.

Part of the cost must be paid with human life. That means deep and lasting hurt for many and many an American family.

Part of the cost must be paid in cash . . . this September. And *that's* going to hurt, too!

The 3rd War Loan Drive is here!

To pay for invasion—to get the money to keep our fighting machine going—you, and every man or woman in America, are asked to invest in at least one extra $100 Bond in September.

$100 EXTRA, mind you—for *everybody!*

No man or woman can hold back. No man or woman can point to his Payroll buying and say, "They don't mean me!" No man or woman can say, "I'm already lending 10% or 12% or 20%—I'm doing enough!"

Sure—it's going to hurt. It's going to take more than spare cash this time—more than just money that might have gone for fun. It's going to take money you have tucked away. It's going to take part of the money we've been living on—money that might have meant extra shoes or clothes or food! Money that might have gone for *anything* that we can get along without!

Sure—it'll be tough to dig up that extra money. But we've got to do it—and *we will.*

We'll do it partly because of the look that would come over the faces of our fighting men if we should fail. We'll do it partly because the cheapest, easiest way out of this whole rotten business is for everybody to chip in all he can and help end it quick. We'll do it partly because there's no finer, *safer* investment in the world today than a U. S. War Bond.

But mostly, we'll do it because America is right smack in the middle of the biggest, deadliest, dirtiest war in history.

And we're Americans.

Back the attack with War Bonds

This space contributed to the Third War Loan Campaign by

BUSINESS WEEK

yet converted to industrial produc

• **Counting on Holiday**—Present pl ning of the trade is in terms of holiday. If it is not granted, obvio distillers will either reduce allowa to wholesalers or reconcile themsel to earlier exhaustion of supplies. A restrictions in monopoly states wh rations now range from one pint to quart a week will be made even m stringent. Since shortages began, m nopoly states have been the suffere (BW—Dec.26'42,p37); for state co missions, unlike independent deale didn't accumulate backlogs.

This is responsible for the wid circulated rumor that monopoly sta have not been getting their full share liquor. It is agreed in the trade th in event of a windfall, a healthy sh of it will go to the state monopol which are really hard up. Independen haven't bothered to mobilize agai this policy, because the industry is n sure of getting even a small percenta of current production.

• **Ceiling on Brands**—Claiming mo immediate attention of the industry the new price order which sets ceilin on brands at the distillery and wine levels. This rollback is designed b OPA to close the loophole in previo ceilings through which distillers escape by withdrawing established brands, an turning out a new and similar brand a a higher price. In wines the situatio was even worse, for the industry wa too young to have established national known labels and brands. Consequentl in some cases, wines were withdrawn, re labeled, and repriced two or three time In general, new ceilings are expected t push most of the evasion brands off th market and make way for the retur of the old familiar brands.

Meanwhile, rollbacks at retail an wholesale levels imposed last month by MPR 445 (BW—Aug.14'43,p92) haven't noticeably reduced the cost o drinking. In the case of Scotch for ex ample, importers now are allowed a 15% markup whereas previously most of them were getting along on 11% to 13%. In other cases where prior mark ups were excessive, prices are slightly reduced. But retailers say it hasn't made much difference one way or the other.

• **Hard to Police**—Within the industry there is more than a suspicion that where the new orders require price re ductions, a lot of dealers in scarce markets will not comply. And this wor ries big distillers who know that when their brands are sold at black market prices, they get the blame even though the retailer gets the profit. They point out that producers, and even wholesal ers, are a small group and easily policed. But retailers are legion, and OPA needs its price police in the food field.

But distillers have a plan in the works. The program—not actually un-

way—will probably call for separate tional advertising campaigns in which ch company under a warning like ay no more!" will define the legal ce range of its brands at retail. The vantages of this proposal are at least o: (1) Distillers, like most war pro-cers, are hard up for a war advertising me, and this attempt to protect the nsumer is tops as a goodwill builder;) it does not endanger dealer rela-ns (even if producers could control ices by a police system, they would us incur the enmity of persecuted alers).

"Essential Function"—Like all black arkets, the extent of that in the liquor de is unmeasured, but it is conceded be serious. One observer tolerantly mmented that black market operators tually were performing an essential nction in distribution by buying up quor stocks in plentiful markets and lling them in scarce ones. The pat-rn is to buy in open states like Illinois nd Wisconsin and sell to surrounding onopoly states like Ohio, Michigan, nd Iowa—for astronomical prices.

In Chicago, one druggist who does substantial business in fine liquors re-orts that he has lost count of the num-er of strangers who have walked in and ffered to pay him retail prices for his entire stock plus 15%. Customary offer to wholesalers is $10 to $20 above the local market price for the liquor.

• The Bootleggers' Edge—Old-fashioned bootlegging has become only a division of the black market, and as an older institution, it has a certain edge on newer price violators. Established originally to avoid taxes imposed on legal liquor, bootleg business has expanded greatly under the added impetus of shortages. And if sugar is taken out from under rationing, some observers expect another spurt reminiscent of the bathtub gin era.

Another boon to bootleggers is the relaxation by the tax unit of the Treasury Dept. of its ban on re-use of liquor bottles. The industry will have to work hard to devise a plan of collection and distribution of used bottles that will keep them out of illegal hands.

CAMPAIGNING FOR WOMEN

With 4,000 war jobs for women on tap and not enough takers, Cleveland's U. S. Employment Service is drumming up applicants through branches in six department stores. And the stores lend employees to run the new "offices." Typical setup is the red, white, and blue booth (above) in Sears, Roebuck's part of a national recruiting campaign. The local drive got off to a good start by enrolling in a part-time war job a Sears employee who helped build the booth.

LAUNDRY ROW ENDED

Intervention by the city council forestalled any serious interruption of laundry service in Kansas City, where the principal establishments have been embroiled with OPA over price ceilings since the middle of June (BW—Sep. 4'43,p14).

The laundries closed their doors last week, pending affirmative action by OPA on their application, filed June 11, for authority to increase prices 25%. Pickups were suspended, and while the laundries were finishing the work on hand, the city council interceded with the OPA regional office in Dallas, Tex. The councilmen won OPA's agreement to speed investigation of the applications and to set a timetable for completion.

On that assurance, the 17 laundries agreed to resume operations but warned they would shut down again if the investigation fails to result in the desired bulge in prices.

PAPER CUPS MANDATORY

Use of drinking glasses has been banned and paper cups required at all soda fountains in Augusta, Ga., whether in drug stores or restaurants. The new regulation, put into effect by Richmond County Board of Health, requires that hereafter all such places must serve their customers in single-service paper cups and containers. The paper cup people report that Savannah, Ga., and Charleston, S. C., are studying the Augusta experiment. There are inquiries from many other towns.

The glassware industry refuses to worry over this infiltration by a perennial competitor. A spokesman for these interests remarks that paper cup scouts are always working with health officers to promote moves like that at Augusta, that the situation in the labor market at this time gives them an extra argument.

Pepsi-Cola Beat

Company ventures into soda fountain field and achieves wide distribution, despite sugar ban, thanks to Mexican deal.

The Pepsi-Cola Co. is very particular about its publicity, and company secrets are guarded carefully. But there's been a lot of trade gossip recently about Pepsi-Cola, and it hasn't been concerned with Pepsi-Cola entertainment centers for soldiers and sailors.

• **Expanding Despite Curbs**—What interests observers is that Pepsi-Cola has been able to expand operations at a time when other soft drink manufacturers have had to cut distribution to meet reduced sugar allowances which were based on 70% of 1941 consumption until last month when the quota was raised to 80%.

Just a year ago, Pepsi-Cola, which heretofore had concentrated exclusively on the bottled beverage, began selling sirup for soda fountain drinks in Binghamton, N. Y. Already, the company has what amounts to national distribution through various franchised bottlers, although it has yet to achieve substantial penetration of the market. Curtailed distribution of other fountain drinks, particularly Coca-Cola, by all odds the leader in the trade, gave Pepsi-Cola a chance to capitalize on scarcity.

• **Back to Fountain Bottles**—War restrictions made metal dispensers or other specialized fountain equipment unobtainable, but Pepsi-Cola got round that by reverting to the practice, common a generation ago, of furnishing sirup in bottles. From the bottle, the soda jerker mixes drinks in bartender style. Pepsi-Cola distributors bottle the sirup in the same containers used for regular Pepsi-Cola and use paper caps for closures, thereby saving scarce metal tops. Ten-ounce glasses furnished to drug stores and soda fountains constituted practically the only new equipment.

Selling for 5¢, the new 10-oz. drink has the same economy sales advantage in competition with the 5-oz.-to-6-oz. fountain Coca-Cola that Pepsi-Cola's bottled beverage has always boosted. In some cases, fountain men weren't pleased by the inroads which the new drink made in their sales of the large, or 10¢, "coke," but most of them were glad to have something to offer customers when reduced supplies of Coca-Cola gave out.

• **Sirup from Mexico**—Trade report has it that Pepsi-Cola owes most of its current expansion to the Mexican-American Flavors Co., a company organized last year in Monterrey, which secured a three-year contract with the Mexican sugar producers' association for all sugar supplies not locally needed—about 50,-

000 to 60,000 tons a year. The contract provided that the sugar had to be used in manufacturing a beverage sirup in Mexico, which could then be exported to any place in the world.

To date, nothing in OPA regulations requires industrial users of sugar to surrender ration certificates for such sirups. Pepsi-Cola has, therefore, been bringing in sugar in sirup form ration-free, while competitors are bound by OPA sugar allotments. Some time ago, however, OPA drafted an order to plug this loophole, but it still awaits Price Administrator Prentiss Brown's signature.

The Mexican government came close to interfering with Pepsi-Cola's operations last spring by amending the license system by which it controls sugar exports to cover sugar-flavored products as well as sugar. About a month ago, Mexico went even further and announced that no further export licenses would be granted until domestic reserves had been built up to 40,000 tons. It is assumed that this amendment was aimed at the Pepsi-Cola subsidiary, but the impact on United States supply has

POPULAR PROMOTION

One Oregon public utility, Portland General Electric Co., hit the jackpot recently in campaigning for friendly relations among new customers working at Henry Kaiser's Swan Island shipyard. In a Sunday Oregonian full-page ad, P.G.E. offered the workers a free 18x15-in. lithographic reproduction of one of their tankers at a South Pacific port (above). So heavy was the response that the first print order of 10,000 copies, carrying no advertising plugs, disappeared in a flash. Second and third printings followed quickly until 80% of the yard's personnel had received prints.

yet to become apparent in the trade.

• **Coca-Cola Carries On**—Coca-Cola acknowledges wartime inroads being made by Pepsi-Cola, root beer, and countless other colorful carbonated fountain drinks—some of which are using the same device for bringing sugar out of Cuba that Pepsi-Cola is using in Mexico. But Coca-Cola sales executives, who went through the same thing in the last war, don't worry too much.

Since 1907, Coca-Cola has protected its famous trade-mark by winning infringement decisions against some 80 manufacturers of products incorporating the names coca or cola in various forms. These suits have been directed almost exclusively at promoters of soft drinks.

• **Litigation Ends**—Since March, 1942, however, Coca-Cola has not relied on such legal strategy to protect its brand name. At that time the Judicial Committee of the Privy Council—the court of last resort in the British Empire—handed down a decision in favor of the Pepsi-Cola Co. of Canada, Ltd., holding that its trademark did not infringe that of Coca-Cola. Shortly afterward, the two companies signed an agreement disposing of all litigation between them.

A very rough comparison of the status of the companies can be derived from such criteria as income figures and number of bottlers (neither company ships the finished product direct to retailers; rather they furnish sirup to local franchise holders, thus achieving substantial freight and distribution savings):

Coca-Cola's sales for 1942 amounted to $120,714,000, more than for any other year except 1941 when they totaled $128,157,000, while Pepsi-Cola reported a gross for 1942 of $26,303,000 compared to $26,014,000 in 1941.

Bottlers of Pepsi-Cola numbered 480 in December of last year, compared to 1,200 local bottlers who are supplied with Coca-Cola through five company-owned bottlers.

ANSWERS DECENTRALIZED

Decentralization to tap new labor sources took a novel twist this summer when Sears, Roebuck & Co. established a correspondence office in Wheaton, Ill. The part-time jobs it offers were eagerly snapped up by housewives who probably couldn't have been persuaded to make the 35-mile trip to Sears' main office in Chicago, and by girl students at Wheaton College who could fit a few hours' work into daily class schedules.

Twice a day Sears sends out from Chicago sacks of incoming customer correspondence which has been sorted to weed out inquiries requiring too much detailed information or reference to office records. Under the direction of two experienced correspondence supervisors, the 23 housewives and students compose and type the replies.

and in Adolf's eye...

THIS man is a glass chemist. And the sand he's working with is going to get to Adolf Hitler's eyes and hurt.

Here's how. Glass basically is made from nd. And glass in this war, in the skilled nds of American glass makers, is a potent apon. It replaces metals on many jobs—etals needed for killing Huns and Japs.

In bombsights and fire control instruents glass helps to rain accurate death on e enemy. In heavy industries, such as the plosive industry, its characteristic resistnce to corrosion speeds powder output. nd glass in the medical and laboratory field uts us and our allies ahead in hospital treatent and in vital laboratory developements. The U. S. is lucky in having a well established glass industry and not having to lean upon any part of the outside world for this essential material. Glass was ready for war, and was able to contribute to the speed records set by other industries such as gasoline and synthetic rubber.

It took a lot of research to make American glass the best in the world. At Corning way back in peacetime, more than 200 laboratory men were working steadily on new forms of glass and new uses for this amazing material. More than 25,000 formulae for glass were developed. Today around 250 different types of glass are in production under the "E" pennant at Corning's main plant.

There are glasses, for example, that withstand corrosive chemicals, that cannot be harmed by heat, that have high electrical insulating qualities, that are extremely resistant to mechanical breakage. And these are only a few. If you feel that glass can help in your plant write today. Corning Glass Works, Corning, N. Y.

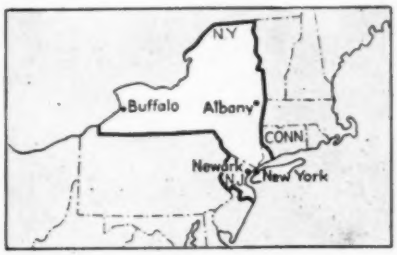
CORNING
means
Research in Glass

THE REGIONAL MARKET OUTLOOK

A summary of industrial, agricultural, and other trends affecting the income and general business prospects in twelve Federal Reserve districts of the nation for most recent month. (Last month's report: BW—Aug.7'43)

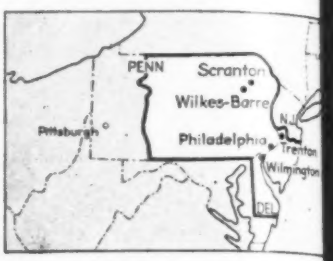
• Boston—Womanpower shortage is leveling income prospects in industrial New England. This district never boasted a large reserve of female labor because it always employed a high percentage of women in its textile, shoe, and related consumer goods lines. Job transfers from these labor-squeezed industries to high-pay war production account for the bulk of current income gains, in which Maine, Connecticut, and Massachusetts are sharing better than New Hampshire and Rhode Island. Factory employment in Providence, Fall River, and New Bedford is off from 1942; Boston scored a sharp increase; Hartford, New Haven, Springfield, and Worcester could only inch ahead.

One surprising note was struck by the summer boom in recreation business, particularly at the older, established resorts. This has helped some Vermont, Maine, and New Hampshire rural sections whose farm receipts have lagged behind the nation's.



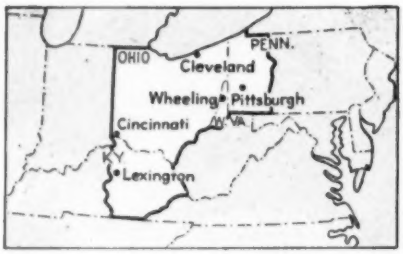
• New York—With the labor surplus in New York City whittled down to 50,000—job turnover accounts for remaining "unemployment"—skilled labor and suitable factory space for expanding war work now are growing scarce. Payrolls are up sharply over 1942 in Yonkers and on Long Island, but increasingly are limited to small advances by manpower shortage in Bridgeport, Newark, Jersey City, and Elizabeth. Paterson and other north Jersey towns still are experiencing arms expansion.

Job rolls in the Buffalo, Rochester, and Syracuse areas in upstate New York are well above year-ago totals, but labor is ever harder to find, and gains one month in employment at Schenectady and Binghamton are offset by drops at Albany and Utica. Agricultural receipts still are moving up but slowly. Growers may well be saved any autumn harvest losses by community efforts to mobilize farm helpers.



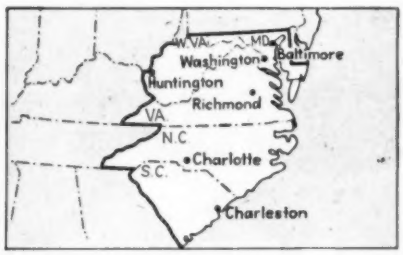
• Philadelphia—Payrolls in the industri around this city, now beginning to slightly behind rather than slightly of the nation's, may hold up longer elsewhere once Europe is won. For immense yards along the Delaware building war vessels, will still be needed Pacific operations. And tank builder Chester already are converting to loc tives for prospective rehabilitation need

The tank cutback, however, has Berwick a relative labor surplus, wh Scranton will put 7,000 of its unempl to work in a new arms plant. Trenton ranks with Wilmington as a critical shortage area, due to the 25% rise in fa jobs there since last year. Reading may them, but only because of emigration industries employ fewer workers tha 1942. Atlantic City, shorn of its mi training business, hopes to do even b supplying civilian recreation.



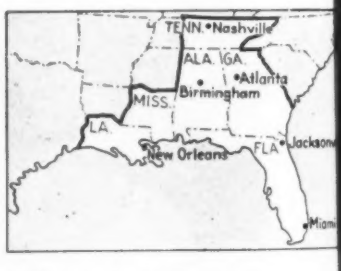
•Cleveland—Major cities in the western half of this district—Toledo, Dayton, Columbus, Cincinnati, Cleveland, Akron—show better-than-average gains in employment over 1942, whereas such eastern-half centers as Canton, Youngstown, Wheeling, and Pittsburgh have lagged a bit. However, with labor reserves long since mobilized, and with strain on community services limiting in-migration from farm sections in the southern part of the district, manpower is growing increasingly short and payroll totals are flattening. Additional gains come only from movement to expanding high-pay lines such as aircraft parts, and from longer hours, as recently in steel and now again in coal.

Farm receipts also are trailing the nation's, particularly in Ohio, but also now in Kentucky. All in all, district income, which has done slightly better than average in the past year, now is running closer to national totals.



• Richmond—Though farm income in the preharvest months ran well ahead of 1942, drought in Maryland, much of Virginia, and part of West Virginia has hit pastures, feeds, and truck crops. The tobacco harvest, especially vital to North Carolina, will be off 6% from 1942. The cotton crop is expected to be smaller in North Carolina but higher in South Carolina. Farmers in South Carolina can figure on sharp autumn income gains.

Nonfarm employment rolls now are below last year's in North Carolina and West Virginia, up less than average in Virginia and the District of Columbia, and higher than the nation's only in South Carolina and more particularly Maryland. All this is due to the sharp drop in construction, the flattening of government job rosters, the labor pinch in coal, lumber, and textiles, and the approach of the few arms centers to manpower limits.

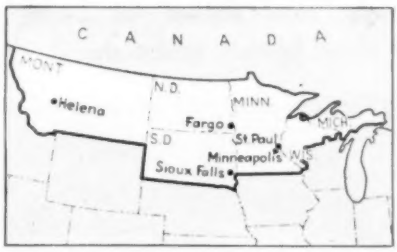


•Atlanta—Islands of construction unemp ment have appeared in many sections this region, especially in Tennessee. T job rolls are still up better than ave in most states, but not in Alabama Tennessee, long over the hump of t early arms boom. Coastal cities—Savan Jacksonville, Tampa, Mobile, New leans—record top job increases over 1 while such inland centers as Atlanta, mingham, and Knoxville are not m ahead. Ship and plane activity will steadily through 1943, however, lit payrolls in most big cities.

Cotton and tobacco prices and per yields are mostly higher this year, augm ing the expansion in receipts expected f increased oil- and food-crop plant Florida and Louisiana mark the high low extremes in farm-income gains 1942 thus far, with other states run a bit ahead of or behind the aver

A GUIDE TO INCOME TRENDS

manpower bottleneck increasingly appears as an income-limiting factor in industrialized arms regions. Weather rally is improving, but drought hits some areas while others hope for late frosts.



icago—Weather has been running gen- favorable to crops in this region. Iowa central Illinois have fared best, with na and Wisconsin a bit behind, but gan definitely hit by drought. Corn, ans, hay, and other feeds have done Bigger harvest will mean more live- production and income later. Farm in- rises over 1942 have outrun the na- only in Iowa. Indiana, Illinois, Michi- nd Wisconsin trail in that order.

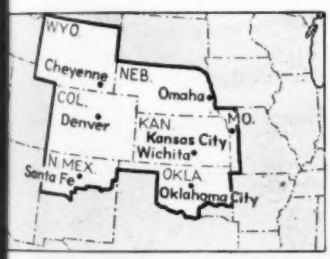
dustrial gains over last year have been in Detroit, Flint, Indianapolis, South Fort Wayne, Des Moines; more mod- in Chicago, Milwaukee, Grand Rapids, . By states, advances have been aver- in Illinois, Indiana, and Wisconsin, in Michigan, below in Iowa. But the o-city variations are wide. Payrolls are gaining, but labor shortage will the income advance to less than the 's over coming months.

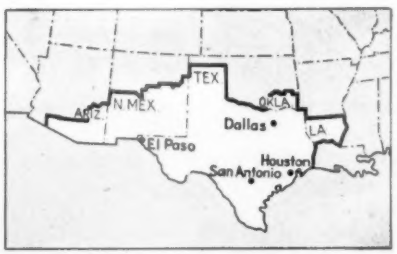
• St. Louis—Once flooded (BW—Jun.5'43, p95), this entire region is now hit by drought, and in contrast to most other Reserve districts, crop prospects have again deteriorated badly. Corn, hay, oats, and other feeds are off some 15% from 1942, fruit-vegetable output is even worse, and the southern sections' key cotton crop will be down, perhaps sharply. Tobacco harvest may equal 1942's light crop; only rice prospects are bright. In the north, current livestock output is up less than nationally, will lag worse later. In all, farm receipts will trail country-wide gains for the year.

The major upsurge in war activity has long since spent itself, and though payrolls are up moderately to sharply in such arms centers as St. Louis, Evansville, Louisville, Memphis, and Pine Bluff, much work centers on ammunition and explosives which have often been cut back without boosts in other contracts for the affected localities.

• Twin Cities—Improved weather has boosted prospects for agricultural receipts markedly. Spring wheat harvests will top 1942's, the gain for flax is even larger, and corn will run close to last year if frosts hold off into October. Pastures, ranges, and other feed crops have also been helped. This improves both the current and the future livestock picture. For the year, the rise in farm income will be well above average in Montana and the Dakotas, but behind in Minnesota and central Wisconsin. Altogether, the district may once again keep pace with the munitions-producing areas.

St. Cloud is now added to the select list of arms towns in the region. Iron and copper mining, lumbering, and vacation activity are at about 1942 levels. Duluth-Superior and Minneapolis-St. Paul, each with 35% more factory workers than a year ago, enjoy the bulk of district war work, and even they are labor surplus areas.





sas City—Employment is still rising at new arms plants and military overbalancing declines in construc- Total jobs in Nebraska and Kansas 20% from 1942, but close to the al average of 5% in Oklahoma, Colo- and Wyoming. Omaha-Wichita-Kan- ty-Tulsa bound the booming areas.

ept in hard-hit Oklahoma, spring- crops are improving and may harvest h as last year if needed rains appear rosts come late. Farm gains will con- well above average in Kansas and ska, moderately above in Colorado orthern New Mexico, somewhat be- in Oklahoma, distinctly laggard in ning.

ome has been advancing much more than the nation's for the past year but now is definitely slowing down. he intradistrict distribution, never uni- still favors Kansas and Nebraska.

• Dallas—Except in the Panhandle, north Louisiana, and bordering east Texas, drought conditions are afflicting agriculture. Estimated cotton yields have dropped 10%, and the damage to pastures and ranges has started cattle moving to market in volume. Corn and sorghums matured before the burning, and rice and peanut crops will be at a record. So receipts will still rise more over 1942 than the nation's, as they have thus far, partly because of excellent fruit-vegetable yields. But much of the anticipated gain has been dried out.

Nonfarm employment, 14% above 1942, still is rising. Rubber and aviation gas plants are coming into operation near Beaumont and Houston, aircraft activity is accelerating at Dallas and Fort Worth, crude petroleum production is being boosted under government edict all through the region, and various steel, ordnance, shipbuilding, and magnesium plants are adding to job rosters.

• San Francisco—West Coast manpower shortages have been making national headlines in recent weeks, highlighting the approach to capacity employment here as immigration falls off and job transfers become increasingly difficult to effect. As it is, lumbering, mining, canning, and other essential lines are pinched for labor. Payroll gains, of course, have been largest along the Coast rather than inland, though a few key centers are outstanding. Ship and aircraft work chiefly account for the quadrupling of man-hour employment in manufacturing over the past four years. Steel, aluminum, magnesium, rubber, and machinery plants also require additional workers.

Farm income thus far has outgained the nation's in California and Arizona, because of the fruit-vegetable emphasis there but has lagged in all other states. Current weather conditions continue more than normally favorable.

LABOR

Production Spur

Navy's Industrial Incentive Division aids war plant morale with "road shows" of battle-scarred fighters and materiel.

Close under the flag-decked stand the stenographers stared at the Navy heroes with acquisitive eyes. Beyond, steel makers in sooty blue overalls listened and gravely chewed tobacco. Sixty feet up on the brick smokestack two figures made a box seat out of their flimsy platform, having taken time out from their job of pointing up the tall column and cleaning the grime from the inset lettering, "Jessop Steel Co."

• **Chicago Piano**—In a voice that boomed over the loud speaker, Gunner's Mate Ben Begley, tall, tan, and clean, was telling these Washington (Pa.) workers how steel was winning the war. He pointed to the troupe's prize exhibit on a nearby truck—a wicked four-barreled type of antiaircraft gun known lovingly to the fleet as the Chicago piano. Ben explained that the gun costs $50,000, throws over 500 pounds of steel a minute, takes three tons of steel to build.

"Ordinarily 16 men work that gun," said Ben. "At Pearl Harbor three shipmates and myself went into action with a Chicago piano. We got three—maybe four—Jap planes."

Then he brought the war smack into the mill yard by emphasizing the importance of Jessop tool steels to the repair ship to which he was attached. Such steels had enabled his crew to take a combat vessel which had been given up as hopeless after injuries sustained on the first day of the Solomon Islands battle and put it back in action six days later—before the battle had ended.

• **Jessop Plate Credited**—Other speakers linked Jessop products directly to the fighting fleet. Lt. Richard N. Kelly, in charge of the Navy group, told the crowd that Hitler and Hirohito "would make a beeline for this mill" if they were able, that they "would like to kill you steel workers and destroy your plant" because this was one of the most vital war producers. He said that Jessop armor plate for airplanes (a company specialty) was saving the lives of American fighters, one pilot reporting that he had received 78 dents in his armor without being wounded.

Chief Turret Captain R. A. Grolbert praised the Jessop record of never having had a strike, thanked the men in behalf of the buddies on his destroyer. He brought a giggle from the girls when he told how the "tin can" on which he was doing escort duty cruised 73 days "without seeing land or anything that goes with it." On such voyages, they were reduced to dry rations—principally dehydrated food—and that made them appreciate refrigerated foods from cabinets made out of Jessop steel plates.

• **Gun Stole the Show**—After the rally most of the crowd stayed to look at the war trophies on the three Navy trucks. Star of the show was the Chicago piano, with captured enemy matériel, the torpedo, and depth bombs fighting [illegible] for second interest. The Navy men explained the working of the mach[illegible] while the steel workers examined, and asked questions.

Fred T. Youngman, Jessop vice-president and treasurer, took the Navy [illegible] around the plant to see the mak[illegible] the steel they had complimented highly. They marveled most at electric furnaces and the belly-shi[illegible] snarls with which the furnaces gr[illegible] the first impact of the powerful cut[illegible] "Sounds like a bunch of our boys g[illegible] into action," a sailor yelled into the of a workman.

• **"From My Boy"**—Another v[illegible] paused to watch Clarence Ander[illegible] an old-time Jessop shearman, cut[illegible] out a disc that would one day b[illegible] circular saw. Anderson stopped w[illegible] held up a finger for attention, t[illegible] drew from the pocket of his gr[illegible] jeans a tattered envelope. From [illegible] he took a postcard showing a vivid [illegible] set over a palm-lined beach.

"From my boy," said Anderson be[illegible] ing. "He's in the Navy too."

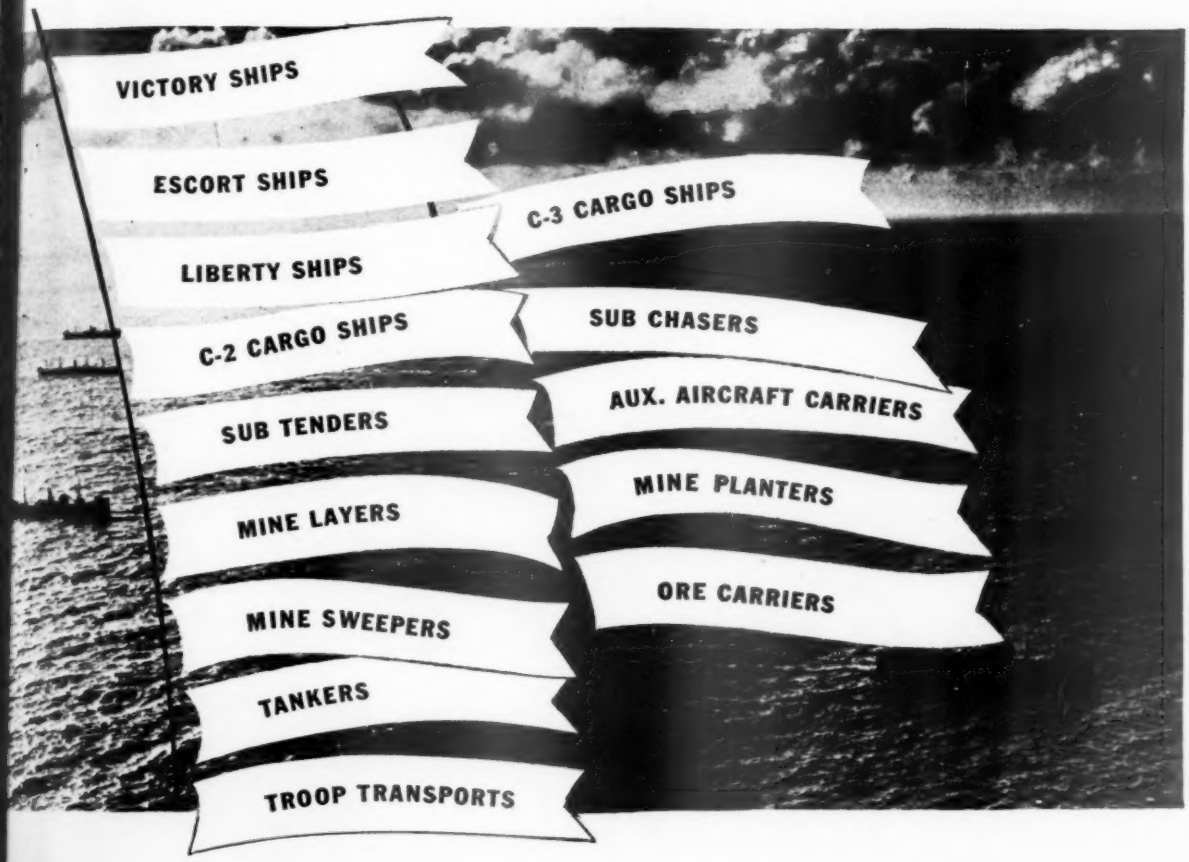
The rally staged last week at [illegible] Jessop plant in Washington was one [illegible] the shows put on by returned com[illegible] personnel for the Industrial Incent[illegible] Division of the Navy. Main object[illegible] the program is to bolster workers' [illegible] terest and morale by giving them [illegible] chance to talk with fighting men, [illegible] see the fighting machines into wh[illegible] their product goes, to bring the [illegible] front closer to the industrial front. I[illegible] it is designed to inspire management [illegible] well as labor.

• **A Personal Interest**—Preparations [illegible] a rally are made by a management-la[illegible] committee. Big Bill Stewart, head [illegible] the Jessop plant's United Steelwork[illegible]

Hard plain messages right from the production fronts get real results when handled by groups of returning battle-front heroes, handpicked to bolster worker morale by the Navy's Industrial Incentive Division. Prize prop in th[illegible] tours is a four-barreled antiaircraft gun, the "Chica[illegible] piano," which fires 500 pounds of steel a minute.

Ships that sail the seven seas...

Are powered by C-E boilers!



This list of merchant and naval vessels indicates e large part assigned to Combustion Engineering in e greatest shipbuilding program of all time. All of ese classes of ships are included in contracts for oilers awarded to C-E during the past two and a half ears – but even more impressive than their variety their volume, the principal part of which is rep-esented by the six types of cargo ships listed. When resent contracts are completed, an aggregate of over 12,000,000 dead weight tons of cargo shipping will be powered by C-E Boilers. This is in excess of the dead weight tonnage of our country's entire pre-war merchant fleet.

In a war where so much depends on shipping, C-E employees from top to bottom are grateful for the opportunity of making so large a contribution to the vital task of keeping American ships moving through the seven seas. A-743-A

COMBUSTION ENGINEERING

200 Madison Avenue, New York 16, N. Y.

local, represented labor; Harry Wilson, Jr., vice-president in charge of operations, represented management for the Jessop rally. Wilson has a personal interest in the output of plate armor plate because his son is in the Army Air Forces.

"When he comes back," says Wilson, taking a long pull at his pipe, "he will represent the seventh generation of Wilsons that has worked in a Jessop steel mill."

Wilson was born in Birmingham, England's great steel center, and his career in the U. S. goes back to the time when the mill at Washington was owned by the ancient British firm of William Jessop & Sons. The Jessop plant is now under complete American ownership and management. It retains the old company policy of letting the big volume go to the big steel makers while holding Jessop production to fine specialty steels.

• **Briefing Session**—Lt. Kelly's handling of the program is well arranged. At a "briefing session" held in one of the offices before his six-man detail went on the platform, Kelly instructed the troupe in the type of products made at the mill with the uses they had in the Navy, told them how to introduce the facts dramatically into their regular talks, made sure that mention would be made of Jessop's record in always meeting or bettering its delivery schedules.

Purpose of the incentive program and tested methods for getting results are kept constantly in mind. Workers in plants that are behind on output or are threatened by stoppages are not nagged

To Clarence Anderson, veteran Jessop Steel Co. shearman, praise from Marine Edward DeBergh, Guadalcanal hero, for the company's products is proud music. Anderson's son, Bernard, who was also a shearman at the Jessop plant, is in the Navy.

bullyragged. They are compli-
nted, encouraged, appealed to as pa-
ts. Rallies are short and snappy,
aximum of 30 minutes. Speeches
both company representatives and
y boys are tailored to fit. In intro-
ing the program at Jessop, the re-
ks of R. Edson Emery, company
sident, would not have taken half a
written page.

Road Show—The Chicago piano and
troupe have been touring the steel
ls of the Pittsburgh area with great
cess. Its bookings are arranged by
T. H. Cable, who heads the Pitts-
gh incentive office, one of 14 that
er the national production map.
ble is a natural for the job since he
an Annapolis graduate who worked
sales promotion for Westinghouse
fore returning to uniform.

Headquarters for the Navy's Indus-
al Incentive Division is in one of
ashington's mansions (2118 Massa-
usetts Ave.). Ming vases and paint-
s by English masters look benignly
wn on the work of the Navy men and
e Waves.

Head of the division is Rear Admiral
H. Woodward; its executive officer
Commander S. J. Singer. These two
ficers organized the division, which
fers numerous helps to industrial
ecutives who feel that their output is
reatened from whatever cause. Spe-
al advice and programs are furnished
fit particular plant needs. In addi-
on, workers and management are
ached through the established chan-
els of information—press, radio, and
agazine.

War Work Dramatized—Tours of
mbat personnel have proved effective
dramatizing war sacrifices for men
d women dulled by overwork or
onotonous tasks having little apparent
nnection with the winning of the war.
was the incentive division that man-
ed the tour of Barney Ross, Marine
d ex-prizefighter; also the parents of
e five Sullivan brothers lost together
the sinking of the cruiser Juneau.
nother outstanding star is Basil Izzi,
e seaman who survived 83 days on a
ft after his ship had been torpedoed.

In addition to using human media,
e division distributes photographs,
lant posters, inserts for pay envelopes,
ecial booklets, 16-mm. movies of pro-
uction-combat subjects.

Absenteeism Cut 75%—While the
sult of the incentive drive can't be
actly measured, letters from hundreds
grateful production executives testify
the effectiveness of the campaign.
Some standouts are worth noting.

A St. Louis plant reported that ab-
enteeism dropped from 16% to 8%
fter combat men visited the plant; later
e Sullivans were credited with reduc-
ing the figure to 4%. Following similar
visits, the Ceco Steel Products Corp.,
Chicago, reported no absentees on the

Helping to drive home Navy industrial pep talks are truckloads of war exhibits, some often made of materials turned out by the listeners.

day after payday and increased purchases of war bonds by employees.

• **Complaints Eliminated** — Samson-United Corp., Rochester, credited Seaman Dominic Vilardi with eliminating complaints which had run from 10 to 20 daily. Sylvania Electric Products' Mill Hall (Pa.) plant figured that a visit from a combat man resulted in a 20% increase in production, nine-tenths of which was maintained. The Chamber of Commerce of Ellwood City, Pa., claimed that twelve rallies at plants in its orbit upped production as much as 35%.

Makeshift Remedy

Aircraft manufacturers pessimistic about manpower plan which "concentrates" control in a multiplicity of agencies.

After a week end of study, West Coast aircraft firms were convinced that the new Office of War Mobilization program for dealing with the California-Washington-Oregon labor shortage crisis doesn't go nearly far enough. Their reaction is one of emphatic disappointment. They wanted a program that would centralize all authority over manpower in the hands of the Army, Navy, and Maritime Commission, and they especially hoped that the War Manpower Commission and the WPB would be out of the picture. Instead, OWM's blueprint calls for participation by eight federal agencies.

• **Based on Buffalo Plan**—The complicated organization that is being created to handle the West Coast's manpower problem is based, to a large extent, on the plan developed in Buffalo (BW—Sep.4'43,p16). It will operate through "area production urgency committees" which will be established in all communities where the labor pinch is being felt. On these committees will be representatives of the Army, Navy, Maritime Commission, WMC, WPB, War Food Administration, Aircraft Resources Control Office, Office of Defense Transportation, and such other agencies as may subsequently be drawn in.

These committees are empowered to recommend alterations in the military procurement program and in civilian production, and to redistribute contracts and set up a system of manpower priorities and allocations in collaboration with area manpower priority committees which will be made up of representatives from the same agencies plus the committee for congested production areas.

• **Small Hope of Results**—Bewildered by the complexities of the new setup which has been thrust upon them, aircraft manufacturers feel that it will create more problems than it will solve. Their resentment is not tempered by the significant omission by OWM of any definite statement on permanent draft deferment for key employees. They will go along with the new plan, of course, but with small hope that it may be effective.

The only plane producer which found any cause for optimism in the labor supply outlook was Boeing in Seattle, and that was for reasons unrelated to the newly devised manpower program. Boeing's cheer derives from a Labor Day decision of the National War Labor Board which, if approved by the Director of Economic Stabilization, will per-

the maker of Flying Fortresses to starting wage rates from 67¢ an to 82½¢.

ld to Move—Outside the limits of Little Steel formula, NWLB's d is explained as an attempt to t to Boeing at least half of the 14,- workers who are to be released by le shipyards at the order of WMC –Aug.28'43,p17). Other "less es- al" Seattle employers similarly have ordered to lay off employees or e out of the labor market area. se include Pacific Car & Foundry building General Sherman tanks, red to move assembly lines to an- r state or give up ordnance work; orth Motor Truck Corp., holding truck contracts, ordered to move relinquish contracts; and three ller plants which have already com- ed arrangements to move to other shington communities specified by U. S. Employment Service.

Other war production centers in the rthwest reported only slightly less uble than the Seattle hotspot. Port- d (Ore.) shipyards found employ- nt applications leveling at 34 a day week as compared with a 150 aver- three months ago. Opening of ools this week saw about 7,000 tting the yards. The situation prom- d to grow increasingly grave if, as has en proposed, the Maritime Commis- n shifts contracts now held by Cali- nia and Washington yards to Oregon cilities. This would increase labor quirements an estimated 20,000.

EVELAND BARS DRIFTERS

"Cleveland will close its door to mi- nt workers for 60 days starting Aug. ." said newspaper dispatches from t city. Literally, Cleveland did not k out "in-migrants" by any physical ans, but its area executives of the ar Manpower Commission hoped to hieve the same effect by means of opaganda through the press, radio, d notices to employers.

To make the lockout effective, the MC's area labor-management com- ttee directed employers, with excep- ns that included foundries and a few tical metalworking plants, to refuse nployment to anyone whose "certifi- te of availability" came from outside e Cleveland area.

Cleveland's recent influx of new labor s approximated 5,000 workers a onth, estimates Dr. William P. Ed- unds, area manpower director. Their ffect on the local labor market has been ight, because so many of these new- omers seem to exist in a chronic state f flux. Furthermore, Cleveland's rental ousing is badly overcrowded; even if ew workers are lucky enough to find ving quarters, they frequently prove ir- egular employees because of complaints nceable to bad housing.

Statistical Vision

For the benefit of postwar planners, bureau takes a look at demobilization prospects, comes up with a few rough guesses.

As a rough measure of what the country will be up against when demobilization starts, the U. S. Bureau of Labor Statistics offers a set of estimates for study by postwar planners. Michigan promises to be the worst trouble spot with military and industrial demobilization equal to 58.5% of its 1940 employment. Close behind it come Indiana, Connecticut, and Washington, all over 45%. At the bottom of the scale is South Dakota with 19.2%.

• **Where It Will Hit**—While these estimates don't have the accuracy—illusory or real—of more orthodox statistics, they give some idea of where the first impact of demobilization will hit. They don't measure the postwar prospects or economic health of the various states because they take no account of the ability of different districts to provide new jobs for demobilized men back on the farms or in reconverted peacetime industries. Also, they don't allow for the fact that many of the workers who have filled jobs in industrial areas—women, for example—will retire from the labor force or go back to their homes at the crossroads when the war is over.

What the figures show is the geographical distribution of military and industrial demobilization that now looks most probable. In computing the estimates, the BLS Occupational Outlook Division first assumed that the armed forces would diminish in strength from 11,000,000 men to 2,500,000 men within two years after the end of the

How Demobilization Will Be Felt

State	1940 employment[1]	Demobilized persons: Armed forces	Demobilized persons: Industrial workers	Demobilized persons: Total	Demobilized persons as percent of 1940 employment
	Number of persons (in thousands)				
Alabama	893.8	172.6	88.6	261.2	29.2
Arizona	150.2	32.3	1.1	33.4	22.2
Arkansas	583.9	118.2	16.0	134.2	23.0
California	2,525.3	482.0	577.6	1,059.6	42.0
Colorado	349.7	70.6	22.4	93.0	26.6
Connecticut	680.5	113.0	218.5	331.5	48.7
Delaware	102.6	17.9	17.3	35.2	34.3
District of Columbia	308.9	50.2	21.7	71.9	23.3
Florida	683.3	125.0	30.3	155.3	22.7
Georgia	1,107.4	196.4	49.6	246.0	22.2
Idaho	158.6	34.0	.2	34.2	21.6
Illinois	2,874.4	523.6	390.2	913.8	31.8
Indiana	1,151.7	214.2	304.3	518.5	45.0
Iowa	862.8	153.8	40.4	194.2	22.5
Kansas	583.8	108.8	111.0	219.8	37.6
Kentucky	847.6	172.6	22.0	194.6	23.0
Louisiana	771.1	152.2	53.1	205.3	26.6
Maine	279.0	49.3	35.0	84.3	30.2
Maryland	690.9	125.0	165.5	290.5	42.0
Massachusetts	1,534.8	266.9	223.2	490.1	31.9
Michigan	1,825.0	350.2	717.7	1,067.9	58.5
Minnesota	931.5	176.8	35.8	212.6	22.8
Mississippi	727.5	131.8	18.2	150.0	20.6
Missouri	1,297.1	232.9	122.2	355.1	27.4
Montana	185.6	36.6	2.2	38.8	20.9
Nebraska	433.4	79.9	18.0	97.9	22.6
Nevada	41.5	8.5	1.5	10.0	24.1
New Hampshire	176.0	29.8	18.4	48.2	27.4
New Jersey	1,569.1	281.4	327.8	609.2	38.8
New Mexico	140.3	33.2	.3	33.5	23.9
New York	4,974.5	913.8	500.1	1,413.9	28.4
North Carolina	1,208.7	225.2	22.6	247.8	20.5
North Dakota	200.4	40.0	.1	40.1	20.0
Ohio	2,345.0	440.3	506.0	946.3	40.4
Oklahoma	658.7	145.4	46.1	191.5	29.1
Oregon	389.8	70.6	58.5	129.1	33.1
Pennsylvania	3,230.2	639.2	579.3	1,218.5	37.7
Rhode Island	264.7	45.9	48.4	94.3	35.6
South Carolina	661.1	115.6	20.0	135.6	20.5
South Dakota	204.5	39.1	.2	39.3	19.2
Tennessee	941.7	181.0	51.2	232.2	24.7
Texas	2,138.4	423.3	140.7	564.0	26.4
Utah	148.9	34.0	19.7	53.7	36.1
Vermont	125.1	21.2	4.8	26.0	20.8
Virginia	933.1	175.1	92.3	267.4	28.7
Washington	607.7	115.6	158.9	274.5	45.2
West Virginia	519.1	119.8	37.0	156.8	30.2
Wisconsin	1,060.8	198.0	134.9	332.9	31.4
Wyoming	86.6	17.8	0	17.8	20.6
United States[2]	45,166.0	8,500.0	6,070.0	14,570.0	32.3

[1] From 1940 census of population.
[2] Differences between United States totals and sums of state components are due to rounding of figures.

Data: Bureau of Labor Statistics.

Then it made a guess at the num- of war workers that would be dis- ed by offsetting the probable rate of traction of munitions manufacture nst the probable expansion of civil- production. Impact on the various es was calculated on the basis of ulation and employment by types of stry.

From the standpoint of statistical the- the results are pretty crude, but for present they stand as an official start- point for postwar planners.

nemployment Forecast—Using simi- techniques, the division has set up a othetical picture of employment and mployment in the first two years the war ends. Here the estimates d on even shakier ground, but again serve as a rough gage of the size of problem.

Working on "fairly optimistic" as- ptions, BLS pictures a postwar labor e of about 57,500,000 workers, some 0,000 less than at the peak of war duction. In the two years of read- tment, it thinks manufacturing em- yment is likely to drop from 18,000,- to 13,000,000, while nonmanufac- ing goes up from 21,000,000 to 24,- 0,000. Farmers and self-employed will rise something like 2,000,000. is will leave around 3,000,000 unem- yed. During the readjustment period, employment may top 8,000,000.

Not Predictions—Although these are asonable estimates based on existing nds," neither BLS nor anybody else nks of them as predictions. They are tures in statistical terms of a postwar uation that now looks fairly likely.

oe of the Reds

Pittsburgh attorney leads ght against Communists in one .I.O. union, plans to take his embers into another.

A one-man campaigner against Com- nism in unions has led a group of tsburgh workers through a maze of iliations. Members of his expelled .I.O. union formed an independent hich, after defeating its parent union a National Labor Relations Board ction, now seeks affiliation with an- her C.I.O. organization.

Represents 20 Unions—Spotlighted in is strange saga is Harry Alan Sher- n, pugnacious, bespectacled attorney, ho represents 20 unions in various pacities, one of them as business gent. He contends that Communists e infiltrating into strategic unions so to influence the destinies of the U. S. hen peace comes.

His positions as business agent of ocal 615, C.I.O. United Electrical, adio & Machine Workers, and as a

delegate to U. E. District Council 6, which has jurisdiction over 45,0 members in Western Pennsylva catapulted Sherman into a bizarre fig as representative of 1,050 workers in Pittsburgh plant of the American Ra ator & Standard Sanitary Corp., me bers of U. E. Local 626. This led formation of Sherman's "Committee Eight," an unaffiliated labor grou after Local 626 was expelled by Distri Council 6. Victorious in an NLR election over the U. E., the Committe of Eight now seeks affiliation with th C.I.O. United Steelworkers of Americ

• **Anschluss Maneuver**—Communist tinged leaders of the district council according to Sherman, sought to mak Local 626 a stooge by combining it wit Local 623, a hodge-podge of worker from ten plants. Fred Haug, U. E. in ternational representative, branded b Sherman as a Communist, appointed business agent for Local 626. Without knowledge of the membership, the bus ness agent failed to pay the local's pe capita tax to the international, thereby making it possible for the district coun cil last February to expel Local 626, switching the membership into Local 623. Although two officials of the sus pended local are charged with taking union funds, council officials have indi cated they felt the local's plight was due more to mismanagement than to criminality.

At the suggestion of Sherman, members of Local 626 selected a committee of seven—later known as the Committee of Eight when Sherman became its head—to negotiate a contract with the company and seek reinstatement into U. E. as a separate local. The company declined to deal with the committee unless it had NLRB certification, and Sherman filed a petition, containing 568 names, to the NLRB for certification. The U. E. whose two-year contract with the company expired May 1, 1943, busily signed up 234 workers as members.

• **U. E. Defeated**—A bitter campaign, highlighted by blaring loud speakers and a shower of leaflets, preceded the NLRB election, which the committee won over U. E. last month by a vote of 441 to 352. Because committee followers wanted to remain with the C.I.O. and avoid any hint of "company unionism," Sherman said it was decided to seek affiliation with the C.I.O. steelworkers. The campaign stressed that a vote for the committee was a vote for the strong steelworkers union. U. E. officials claimed this was only a subterfuge; that the committee had no desire for affiliating with the C.I.O. but wanted only to split the labor movement. Letter signed by regional officers of the C.I.O. and the steelworkers union condemned the committee and indorsed U. E.

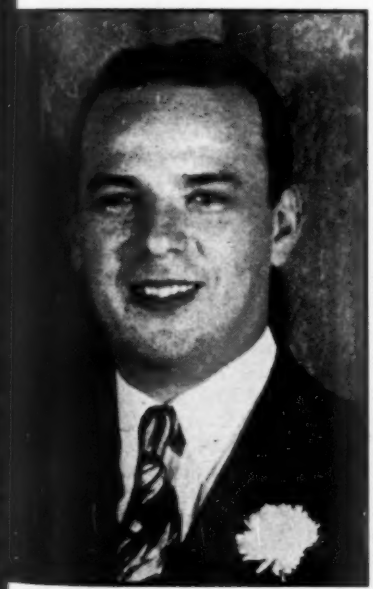
The NLRB has under advisement U. E.'s charge that company interfer-

...ce influenced the election. U. E. ...ders point out that two of the com...ttee members have supervisory jobs. ...rman explains that the two were kept ... the Committee of Eight to avoid ...nging the NLRB petition.

Compromise in View?—Disregarding ...no welcome" warning of C.I.O. Re...nal Director Anthony J. Federoff ...t affiliation with the steelworkers ...uld amount to "raiding by subter...," and would create friction between ...C.I.O. unions, the Committee of ...ght applied for a charter as a steel...kers local. There have been indica...ns that some compromise may be ...ched if the committee gets rid of ...rman. Such a compromise is far ...m Sherman's mind, however, for now ... claims the C.I.O. regional office is ...nting and plans to charter the com...ttee as a local industrial union with ...e ultimate intention of transferring ...to the steelworkers' jurisdiction.

Although in his middle thirties, Sher...n is no novice in labor union wars. ... 1941, as counsel to a rank-and-file ...up, he led a successful court fight ...r a housecleaning in one of the tough...t unions in Pittsburgh—Newspaper ...elivery Drivers Local 211 of the ...F.L. Teamsters.

Unseated a President—His coup de ...ce in that wrangle was deposing ...nthony (Buck) White as president of ...e local. White, drawing a salary of ...00 a week from the local and as much ... $550 a month from the Pittsburgh ...n-Telegraph, was found in court to ...ve accepted a $25-a-week increase ...om the paper for his permission, as ...ion president, to lay off 15 trucks.



From C.I.O. electrical workers to C.I.O. steelworkers—that's the route along which Harry A. Sherman wants to take an American Radiator union in his fight against Communism.

FINANCE

Long Road Back

Standard Brands, launched as General Motors of food field, fell far short, but new policies are now improving results.

It isn't so strange for a company to split up its stock and raise the number of shares outstanding to assure broader distribution or for some other reason. It is not so usual, however, to see a reverse splitup attempted. Yet such was the plan on which Standard Brands stockholders voted this week—a proposal to cut down the present amount of common stock by exchanging four old shares for one of a new issue.

• **Market Respectability**—Still, there is a good reason for this. J. S. Adams, Standard Brands new president, is trying to raise the stock's prestige by removing it from the cats and dogs, an all-inclusive Street term for shares selling under 10. This is in line with Adams' current efforts to get his company out of the rut into which it had fallen. Also, it may write another chapter in the familiar saga of how the small town boy (this time from Brazil, Ind.) makes good in the big city.

As Adams, an active member of the Fairfield (Conn.) Hunt, might phrase it, Standard Brands, Inc., was foaled in 1929 by J. P. Morgan & Co. out of the Fleischmann Co., the nation's largest yeast producer. Other members of the family included Royal Baking Powder Co., another leader in its field; Chase & Sanborn, a large coffee and tea house; and E. W. Gillett, Ltd., a Canadian producer of baking soda, etc.

• **Hopeful Beginning**—With its sponsorship and an initial authorized capital (1,000,000 shares of preferred and 20,000,000 common) large enough to handle many new acquisitions, Standard Brands was expected, in line with 1929-style optimism, to eclipse the earlier meteoric rise of General Foods Corp. and soon to become the General Motors of the food industry. Its start wasn't too bad, either. By 1932, despite General Foods' head start, it was able to show a net some 45% greater.

But the company proved a poor front runner. Although its sales by 1942 were 73% above 1932 levels, the profit trend was very definitely downward. In fact, net by 1942 had dropped off some $10,500,000 to levels less than a third of those seen ten years before.

• **Change in the Rankings**—General Foods, on the other hand, forged ahead in the decade. By last year, 1932 sales had been more than doubled. Pr despite $18,400,000 of federal t were a third larger than in 1932– 2¼ times those of Standard Brands.

Reasons for Standard Brands' sl ing are not hard to find. Products names for which it paid fancy pr failed to live up to early expectati The planned diversification never m rialized; yeast sales, alone, for a t provided 80% or more of earnings. T didn't matter while yeast making still a highly profitable business. H ever, the decline in home baking sales, and the end of prohibition brou new competition into the yeast fi such as Anheuser-Busch.

• **Sales Plan Costly**—The merchan ing system started by Fleischma which eliminated jobber profits throu maintenance of some 500 selling ag cies giving personal delivery service most of its outlets (60,000 commerc bakers, hotels, restaurants, etc., a 300,000 retail grocers), turned out be very costly.

The crying need for a shot-in-the-a was finally recognized by the mana ment. Major Bowes, and then Char McCarthy, proved successful in th radio promotion of Chase & Sanbo "dated" coffee. Liquor lines, includi the American agency for Black & Wh Scotch, were taken on to supplem Fleischmann gin. Production of m products, frozen eggs, vinegar, and n desserts was started. An effort to s raw yeast as a tonic was unsuccessf And, though most of these efforts d raise sales, they didn't hoist profits.

• **New President**—Between 1937 a 1942, holders saw Standard Bran common drop from above $37 to und $3 and annual dividends from $1 to 1 Personnel changes were made. Late 1941, Adams came on the scene, fre from successes as executive vice-pre dent of Colgate-Palmolive-Peet; as partner and general manager of Bento & Bowles, advertising agency with Be Foods, General Foods, and Procter Gamble as clients; and as a Johns-Ma ville executive.

He has a $100,000-a-year contrac reinforced by an option on 50,000 co mon shares at $5 (it is now $7), and retirement agreement, effective in 194 calling for $2,500 annually after reti ment for each year of continuous acti service after 1947.

• **Economies Bear Fruit**—Since Adam took over the reins, he has cut his ow salary $25,000 so as to be in a positio to insist on severe economies elsewhere He has stopped all deliveries of product direct to retailers, except coffee, an sales are now made more cheaply v jobber. He has deemphasized the ex

ive "dated" coffee idea without loss
les. Last year, selling expenses ran
than $1,000,000 under 1941 levels
ite a rise in sales of almost $22,-
000.

nder his direction, too, Standard
ds entered the margarine field in
by buying Standard Margarine, a
r producer. Louden Packing has
been acquired, which adds to out-
an increasingly popular blended
table juice, V-8 Cocktail, once mar-
d by Kraft Cheese. A whisky dis-
y has been bought to round out the
war liquor line, and during the past
, the company has become an active
icipant in the vitamin field. A new
yeast, which holds postwar promise,
been developed for the Army.

rofits Improve—In the first six
nths of 1943, after taxes and all
rges, the company earned 26¢ a
re on its common stock, the same
ount earned for the full year 1942.
ckholders realize that the company's
nerability to high tax rates precludes
ch chance of cashing in presently.
wever, they have greater confidence
the management and in the postwar
look.

ostwar Cushion

New type of V loan is to otect contractors' working pital at the time of contract rmination by services.

Liberalization of government-guaran-
ed "V" loans (BW—Sep.4'43,p5) puts
new twist on the problem of contract
rmination. From now on, a war con-
actor can arrange in advance for a line
credit to tide him over the first part
his reconversion period. Hence, he
n be sure of getting at least part of
e working capital he needs for post-
r production, even though the gov-
nment takes its time about clearing
s termination settlement.

Amount Isn't Automatic—In practice,
e new system will work out like this.
e contractor will ask his commercial
nk for a line of credit to become
ailable when and if his contracts are
nceled. Maximum size of the loan
ill be stated as a percentage of his ac-
ounts receivable, inventories, and work
progress—what percentage will have
be threshed out by the contractor
nd the bank.

As soon as the contractor gets a
rmination notice, he may start draw-
g on this credit line. The Federal
eserve Bank of the district, acting as
scal agent of the government, will
uarantee all advances up to 90% if the
ommercial bank wishes. Security for
e loans will be the settlement pay-
ents due the contractor from the pro-

THE MARKETS

Since Italy, never more than a minor league team at best, found itself up against really top-flight opposition, it had seemed fairly clear that the nation probably would quit at the first favorable opportunity. The stock market has realized this all the more clearly ever since Mussolini was discarded by his king some weeks ago. Consequently, the rollback in security prices which followed the Duce's finish as a world factor likely went some distance, too, in discounting the subsequent downfall of Italy, itself.

• **No Marked Pressure**—At least this would seem indicated by the price action of stocks listed on the Big Board when the announcement of Italy's surrender came out on Wednesday. Volume did show a large increase, though only in relation to the contracted trading activity seen of late, and values generally sought slightly lower levels. The stocks mainly affected obviously were those in the "war" category (steels, rails, etc.), and even there the price changes registered did not indicate the presence of any great selling pressure.

With the usual British reserve, the London stock market has thus far treated the news even more coolly. However, when it comes to the American commodity markets, prices there disclosed a quick and unfavorable reaction to Gen. Dwight Eisenhower's armistice announcement, since both cotton and the grains showed sharp price drops, with rye evidencing the greatest volatility.

• **Shifting Expected**—The direction security prices may take after investors and traders have had the time to give more mature thought to the good war news is problematical. Few on the Street feel that they have enough black magic at their command to warrant any exact predictions in that connection. However, it is felt by most market students that the news is quite likely to hasten from here on, the execution of previously made plans for switching out of war stocks before hostilities cease and into shares of the various companies considered to have good postwar prospects.

New York City's quota in the Treasury's Third War Loan Drive has been set at $4,168,000,000, a figure representing 27.7% of the minimum amount being sought this time from the nation as a whole. It may prove a selling job to top this by the same margin of oversubscriptions seen in the case of previous drives. Consequently, for some time the brokerage fraternity, which has been split up into a number of groups the better to handle the work, is quite apt to be busier hustling the sale of war bonds than worrying about the stock market.

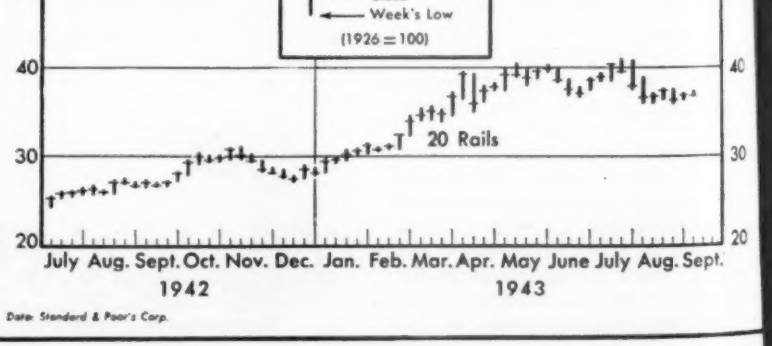
• **Not Open to Banks**—During the drive, none of the securities being offered, except the Series C Savings Notes, can be purchased by the commercial banks (their time will come later). Banks of all description will be open to take subscriptions from all other bond buyers, however.

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial	117.2	116.8	115.9	88.2
Railroad	36.8	37.0	36.8	27.2
Utility	51.0	50.1	50.0	29.9
Bonds				
Industrial	117.3	117.2	117.0	109.6
Railroad	98.9	98.6	99.0	86.0
Utility	115.8	115.6	115.6	105.1
U. S. Govt.	112.9	112.9	112.9	110.3

Data: Standard & Poor's Corp. except for government bonds which are from the Federal Reserve Bank of New York.

COMMON STOCKS—A WEEKLY RECORD



Data: Standard & Poor's Corp.

ment agencies that canceled his tracts.

ntiworry Insurance—While he keeps line open, the contractor will have ay a commitment fee, which may up to ½% a year, on the unused bal-. He may, of course, wait until can-tion of a contract or contracts be- opening a line, but it is permissible buy peace of mind by doing so im-diately.

When he does draw on it, the gov-ment pays the interest on all ad-ces. The theory behind this is that government owes the contractor settlement payments and therefore uld cover the expenses of providing king capital until the termination ments have cleared.

id for Subcontractors—If the con-tor wants to, he may include in the the settlements he has to make h subcontractors. If he does this, terms of the loan will provide that must turn the money over to his s as soon as he draws it.

Actually, there isn't a great deal of ference between a V loan for postwar king capital and one of the old style loans which usually include a clause stponing maturity in case of cancel-ion. Original purpose of the V loan s to finance current operations, but good many contractors have been ing them because they wanted the otection of the "freeze" clause (BW—g.21'43,p109). If their contracts are minated, they will come out just out as well as the contractors who ail themselves of the new provisions.

To End Reluctance—Procurement ficers know all this, but they hope re-sion of the rules will have some help-l psychological effects. A good many ntractors have been worrying about rmination, and in some cases the pro-rement agencies found them reluctant tie up money in heavy inventories take on new work. The services hope e new-type V loan will cure this brand jitters.

Nobody knows yet how many con-actors will take advantage of the new stem. A lot will depend on whether not the services finally adopt a policy making immediate advance payments termination settlements.

Fewer Guarantees—So far, V loans ve played a fairly modest part in ancing war production. At the end June, authorizations totaled $4,718,-18,000, of which contractors had actu-ly borrowed $1,428,253,000. The rvices now think they have gone about far as necessary in guaranteeing loans.

XTENSION UNDER 722

The much discussed Section 722 BW—Jul.31'43,p22) of the 1942 Rev-nue Act permits the use by corpora-ons of some other tax base than 1936—9 actual earnings or a fixed percentage

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Business Week—September 11, 1943

of invested capital for compilation the excess profits tax, provided t can show a fundamental change, bef Jan. 1, 1943 in operation, manageme character of products or services, capital structure, but it specifica states that any relief applications m be filed before Sept. 16 for the taxab years through 1942.

However, the Treasury has just a nounced that Chairmen Robert Doughton of the House Ways & Mea Committee and Walter F. George the Senate Finance Committee ha agreed to a change. Under this, th deadline would be extended to thr years after the filing of a return or tw years after payment. Also, it wou be made retroactive so that corporation intending to proceed under Section 7 would have more time in which to wo up data to support any claims alread filed or being prepared.

Alleghany Glides

Robert R. Young's holding company, heretofore in the rai and truck fields, buys second largest maker of gliders.

Earlier this year (BW–May8'43 p100), the Alleghany Corp. was able successfully to solve the serious problem presented by a 1944 maturity with the aid of a longer-term bank loan.

• **Another Achievement**—With other objecting junior creditors, it has also since managed (BW–Jul.24'43,p102) to have an earlier Interstate Commerce Commission-approved reorganization plan for the Missouri Pacific referred back by the U. S. District Court to the commission for further study. Consequently, it now has hopes that its holdings of junior MOP securities will be accorded more favorable treatment than before in any new plan suggested for the system.

Now Alleghany once again enters the spotlight. It has just announced that it has added to its portfolio of security holdings (previously embracing the railroading, trucking, armored car, coal mining, and coal distributing fields) all the common stock of General Aircraft Corp.

• **Second in Gliders**—General Aircraft was organized in October, 1939. However, it has enjoyed substantial Army contracts for freight and transport gliders and has grown to be the nation's second largest manufacturer of gliders.

No details concerning the purchase price of the shares have yet been divulged. Neither is it yet known whether buying of the stock merely represents an isolated venture by Alleghany or the actual start of a program by Robert R. Young and his associates to move into the aircraft field.

THE TRADING POST

-Starting Public Works

henever you hear talk about a pro- of public works construction to up contemplated postwar slack in loyment, you probably will find, if listen long enough, that the scheme olves financing with federal funds. ow, there is bound to be a large me of deferred public works con- ction on the shelf when the fighting s. State construction of highways other facilities has been drastically tailed for the duration; many cities towns have laid aside plans for erworks, sewerage installations, pav- school buildings, and other neces- facilities. These projects will be ilable for prompt action.

hey will make a lot of jobs—neces- , useful jobs that will return full ue to the communities for which the rk is done. It is in this direction that should be looking for our postwar blic works employment rather than ard a resumption of federal financ- of local projects that was invoked a relief and recovery measure during e depression of the 'thirties.

Any postwar conditions that are likely prevail will be essentially different m those that shaped the public works licy of the depression. It is worse than tile to encourage amongst the men o are responsible for public works anning a state of mind that bids them at upon some federally financed and ntrolled public works project.

What the postwar outlook calls for w is bold, aggressive planning for stwar public works by the communi- s themselves as well as for equally old aggressive planning by private siness. Neither can afford to base its anning on the prospect of federal vernment intervention.

* * *

That is why it is so heartening to arn that the 20,000 citizens of Eugene, re., have set up a postwar planning uncil to administer an ambitious con- ruction program to start as soon as stilities cease and to be financed with x money "laid away" as a nest egg uring the war years. Their object, of ourse, is to provide some jobs for re- rning service men and to help tide the ty over a lean period which Eugene's usiness men fear might come when the ar ends, as well as to catch up with e necessary public improvements of progressive community. The program cludes the building of new schools, ewage and drainage systems, and the ifting of all power lines underground. o federal government financial aid ill be sought.

Spark plug of the plan is William M. Tugman, editor of the Eugene Register-Guard, who first presented his "postwar nest egg" idea a few months ago to selected groups of Eugene taxpayers. It was received so well that similar presentations were made to some 30 civic groups, and $10,000 was raised to establish a committee to promote and administer the plan under direction of the Eugene Chamber of Commerce.

* * *

Gist of the program is this: For 15 years the county, city, and school districts have been dedicated to "going without" in order to pay off more than $6,000,000 accumulated debt and interest. By 1948, they will be free of debt, and between now and then, a total of 15 mills of the tax levy out of 50 mills will be released from debt service. Instead of reducing taxes and getting back into debt, this 15 mills will be used to accumulate cash funds for county, city, and school districts.

Already one project in the program has been authorized by citizens. At a special election on June 27, taxpayers approved the first special seven-mill-a-year levy for five years to build up a $500,000 cash fund to start a $1,500,000 high school for which a 70-acre site already has been bought. The vote was 10 to 1 for the project. Next May, the citizens will vote on a three-mill levy for a new bridge and a five-mill levy for new trunk sewers, drainage systems, and a project for clearing certain downtown blocks to provide off-street parking areas. None of the work will start until the end of the war.

Eugene owns its own electric power system, and the city's postwar planners propose to bury power lines throughout the city at a cost of about $2,778,000. Aside from the esthetic and safety values of such a project, the planners expect it to make much work for common labor. This would be a long-range job to be financed by a 10% surcharge on each power bill (about $70,000 annually) to start as soon as citizens vote their approval. The city's electric rates now are among the country's lowest.

In commenting on the plan, Tugman explains that "Eugene is not waiting for Santa Claus to arrive from Washington, but if federal aid is offered on terms that do not mean surrender of local control, it would be accepted."

Which seems to indicate that the people of Eugene have studied the history of recent years and learned at least one of its lessons. And certainly their plans are better adapted to the postwar outlook than some of the elaborate projects for federal programs. W.C.

THE TREND

LABOR LAWS—AND LOGIC

It is much too simple to dismiss the Connally-Smith War Labor Disputes Act as a badly drafted law and let it go at that. Testimony that there is something wrong with it can now be offered by more than 200 employers on the basis of direct experience. In a little over two months of the law's operation, unions have used it 214 times to put pressure on an employer, or through him on the government, for some concession that was being refused. And the use of the law by organized labor for this purpose is increasing at an accelerating rate.

The lineup on the bill when it was before Congress led industry to believe that it had a vital and positive interest in the measure's passage. With a remarkable unanimity, organized business and its allies in the House and Senate fought hard and long for its enactment. The unions and their cabal in government opposed it to the limit of their strength and the end of their stratagems.

• **Conceived as an instrument** that would divest organized labor of some of its power as a pressure group and eliminate some of the frictions in employee relations, the law has had a directly opposite effect. It serves a purpose completely alien to that which was intended by its sponsors. Instead of curbing labor's bargaining strength, the section of the act that provides for plant seizures in the event of labor trouble or the threat of labor trouble has armed the unions with a new weapon.

Instead of neutralizing labor's political influence through its inclusion of a ban on direct political contributions by the unions, the act has been responsible for a resurgence of political activity in the A.F.L. and C.I.O. which promises to make itself felt distinctly in 1944.

Instead of discouraging wildcat stoppages by its provision of penalties for strikers and leaders, flash strikes and quickies have increased since June.

• **Most important of all,** the famous 30-day cooling-off period which must now elapse between announcement of intent to strike and the taking of a strike vote has become in practice a heating-up period during which campaigning and agitation have precipitated the employee relations of more than one important war plant into chaotic disorder.

Allis-Chalmers, Curtiss-Wright, power companies in Michigan and Ohio, and Newark trucking firms are representative of the employers who have already learned that the Connally-Smith Act is a two-edged sword. They were led to expect that it would be a valuable employer defense weapon, but with the exception of the token punishment administered to insurgent coal strikers in Pennsylvania, they have yet to see it wielded in the employer's behalf. And any of these employers will tell you that he has a much more serious problem to deal with when the United States government steps in and plasters plant bulletin boards with sample strike ballots than he had when his union held a closed meeting in the local Odd Fellows Hall to discuss whether or not to call a strike. If the old method was harmful to morale the new one is, by comparison, disastrous.

• **Even so, if there existed some evidence** to suggest that the Connally-Smith labor trouble was simply the old trouble in new dress, it would be possible to say that the law had provided an alternative outlet for the same head of steam and that, consequently, the sum total of labor trouble an employer has to deal with has not increased. But this easy assumption appears baseless. The number of strikes has increased rather than declined. The number of cases coming before the National Labor Relations Board in which unions seek certification under the Wagner Act as exclusive bargaining agents is at an all-time high. The National War Labor Board and its regional units are handling an increasingly heavy volume of disputes. The unions have abandoned none of the established devices for advancing their interests; they are using them all to the full. The Connally-Smith Act adds another string to their bow.

It is popular to say now that this inversion of the law's purpose came about because, while the idea behind the measure had been long considered and discussed, the bill itself was hastily written to take advantage of the favorable legislative opportunity for its enactment that was presented by John L. Lewis' feud with the government. This explanation is dangerously simple. It assumes that a different drafting into law of the Connally-Smith intent would assure the attainment of the desired end. This might be true, but it is by no means certain. It is dangerous doctrine because it focuses on the mere language of the law that attention which business should be giving to the theory behind it.

• **The fundamental question** is how much can be done by legislation to influence a social dynamic like labor relations. We have, by judicious lawmaking, regulated strong-running currents. The Sherman Act and the law creating the Securities & Exchange Commission are examples of such regulation. But when we legislate in the hope of reversing a trend and in so doing make a too radical attack on established patterns, we risk intensifying the very hazards we seek to escape.

In the intensely practical, but delicately balanced competition of labor relations, the concepts of politicians written into law may have unpredictable and intolerable consequences. The interests of business will best be served by leaving the details of collective bargaining and personnel policy to its industrial relations experts. Better than anyone else, they know what hazards inhere in further government intervention of any sort.

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